

BUSINESS MANAGEMENT

*Training and Service
for Executive Work*

*Planning the Office
Services**How the
Office Contributes
to Control*

LA SALLE EXTENSION
UNIVERSITY
C H I C A G O



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BUSINESS MANAGEMENT

Executive Manuals 58 and 59

PLANNING OFFICE SERVICES — Being Executive Manual 58, on Office Organization and Management, in a Complete Plan of Training and Service for Executive Work

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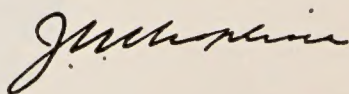
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- Outline of Business Activities
- General Index of Business
- Digest of Management Principles

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PLANNING THE OFFICE SERVICES

Part I

ORGANIZING THE TRANSCRIBING SERVICE

CENTRALIZING certain office activities that serve several departments of the business, into one department that specializes in rendering that service, has two important advantages. It relieves departmental managers from the supervision of those activities, and it results in better supervision, because one executive can specialize on supervising those activities.

Among the office activities that lend themselves to centralized organization and control are:

- Transcribing.
- Mail and messenger service.
- Filing.
- Duplicating.
- Supply service.

But centralized organization of these service activities is not profitable in the smaller offices. As an office grows in size, however, sooner or later the question arises as to how far it is advisable to leave these service activities within the individual departments. When or whether to bring them together in centralized units is a live question in offices where there are 100 or more employees.

The Problem of Centralized Organization. It is an easy matter for each department to employ its own typists and stenographers, to add filing units, to purchase duplicating machines of one sort or another. But this practice is likely to result in duplication of employes, of records, and of equipment, with the result that both employes and machines are idle for considerable periods. Furthermore, functional supervision of office service activities is greatly handicapped under decentralized organization.

It must be remembered, however, that too great haste

in centralizing these services may result in overorganization and a loss of the personal and individual service that decentralized units can supply; also if improperly organized, it may not secure that flexibility of service necessary to take care of the needs of each department promptly and adequately.

To know when the point is reached where decentralized groups are uneconomical and inefficient as compared with centralization, is a test of organizing ability.

Let us here analyze this problem as it is met in the transcribing activities of an office, which activities include primarily the typewriting of letters, memos, instructions, forms that are filled in, cards, etc.

Analyzing Transcribing Requirements. The need of striking a nice balance between decentralized units located in the departments which they serve, and a centralized department serving the entire organization, is very urgent in the case of transcribing service.

Figure 1 shows a form that is useful in analyzing the correspondence requirements of a business. Upon this form is recorded the exact amount of time that each employe of the department spends in dictation, and the time required for transcribing his dictation. The production of transcribed matter is measured in hundreds of lines. The facts thus reported serve as the basis for judging between the desirability of centralized and decentralized organization of this important office service activity.

Even where centralization is obviously desirable, various special considerations may justify the location of certain stenographers or dictating-machine operators within a department. The transcriber may have secretarial duties, filing, and the receipt and transmission of telegrams, etc., which can be best handled within the department, so that the transcriber can give better service by being located within the department.

CORRESPONDENCE ANALYSIS

Department.....Purchasing..... Week Ending... May 7, 1925.....

DICTATORS' TIME

Name of Dictator	Position with Company	(a) Time in Preparing Dictation		(b) Time for Actual Dictation		No. of Lines Dictated	Remarks
		Hrs.	Min.	Hrs.	Min.		
Mr. Jones	Purch. Agent.	1	45	12	15	2327	
Mr. Schwab	Asst. Purch. Agt.	1		8	30	1487	
Mr. Chase	Buyer		45	6		1185	
Mr. Clark	Buyer	1	15	9	15	1725	
		4	45	36	0	6724	

STENOGRAPHERS' TIME

Name of Stenographer	Position	(c) Time Taking Dictation		(d) Time Transcribing	Copy Work	Idle Time	Miscellaneous	No. of Lines Written
		Time	Min.					
Miss Elwell	Sec.	12 $\frac{1}{4}$		18 $\frac{1}{2}$		6	5 $\frac{1}{4}$	2327
Miss Erickson	Sec.	8 $\frac{3}{4}$		14	10	3	6 $\frac{1}{2}$	1487
Miss Cole	Steno.	15 $\frac{1}{4}$		24 $\frac{1}{4}$	2 $\frac{1}{2}$			2910
Total		36		56 $\frac{3}{4}$	12 $\frac{1}{2}$	9	11 $\frac{3}{4}$	6724

Total Value Dictators' Time [Based on Total Col. (a)+Col. (b)] **\$75.00.** Total Lines Dictated, **6724.** Cost per C Lines **\$1.12.**
Total Value Stenographers' Time [Based on Total Col. (c)+Col. (d)] **\$65.00.** Total Lines Dictated, **6724.** Cost per C Lines **\$.97.**
Total **\$2.09.**

Figure 1. Analysis of Correspondence Requirements.

Thru studies and analyses such as that summarized on this form, it is possible to attain exact data as to time being spent in office services. This kind of data is useful in organizing and directing these services.

In planning any facilitating activities, the main objective is service—maximum usefulness to the individual or group served.

In applying that principle, however, due allowance should be made for the human tendency to exaggerate one's actual needs. All claims of individuals concerned should be checked by an impersonal record of service rendered and by an equally impersonal analysis of the facts revealed in that record.

Centralizing the Transcribing Activities Is Economical. The operating advantage under centralized organization of office service activities is so great, as a rule, that when it does not detract from actual service to the business, there is usually little question of the advisability of centralizing these activities.

When individual departments are permitted to build up their own transcribing groups, for example, great difficulty is met in keeping the groups well balanced in relation to the needs of the departments they respectively serve. At times, typists, stenographers, or dictating-machine operators will be rushed. At other times it will be impossible to keep all of them busy. But thru centralizing the transcribing activities, this service can be better distributed as needed among various departments of the business. With the needs of the entire organization analyzed, a force of transcribers capable of handling the work of the entire organization with a minimum of idle time can be built. The amounts of this service required in each department vary from time to time. Large amounts required in one department at one period of time are usually balanced by small amounts required in other departments during the same period of time.

It is apparent that—

A primary advantage of centralization is the taking up of the slack that results from the overmanning of transcribing groups by the individual departments.

Unless there is an effective system of transferring tran-

scribers from one department to another according to the current needs of each department, any one department, anticipating its peak needs during a month or week, is likely to be overmanned with transcribers at one time in order to have enough of them at another time.

Assignment of Work Along Specialized Lines. Equally important — considered from the viewpoint either of economy or of the quality of service rendered—is the fact that the maximum efficiency of transcribing activities is gained only when stenographers, typists, and dictating-machine operators are individually engaged upon the type of work in which they are especially experienced and trained.

When stenographers, typists, and dictating-machine operators from individual departments are brought together in a centralized department, we find varying grades of experience and ability among them. How are they to be organized?

Obviously, they fall into three groups:

A typists' group.

A dictating-machine group.

A stenographic group.

But the typists thus brought together do not have equal ability; nor do the dictating-machine operators, nor the stenographers. Some quickly show their superiority over others even if matters are left to work themselves out.

Only when it is known just what grade and quality of work each operator can do, and just how fast each can do it, can work be efficiently assigned.

One typist, for example, shows exceptional aptitude for accurately transcribing fractions and percentages. This transcriber should therefore be chosen for this kind of work so far as possible. Another typist (or stenographer or dictating-machine operator) may be exceptionally proficient in turning out a job of ordinary copy accurately

and with great speed. She should therefore be chosen, so far as possible, for this kind of work.

A point in favor of centralized organization is that—

Centralization of a general service activity facilitates the assignment of each kind of work to those who are most proficient in performing that kind of work.

Centralization Facilitates Training. Another advantage of centralized organization is that it facilitates the training of transcribers.

An important function in supervising transcribing activities is that of training competent stenographers, typists, and dictating-machine operators. Those who come fresh from the public schools and business colleges must be further trained for the particular work they are to do. Even experienced girls usually require considerable training when first employed, before they become thoroly proficient in meeting the standards of performance required by a new employer. This does not necessarily mean that an elaborate training program must be established. An efficient supervisor, thru individual attention to each new employe at the start, can usually give all the training that is ordinarily required, especially so if the new employes are added gradually, one by one.

It is apparent that—

Centralized organization affords the conditions most favorable to breaking in and training new employes.

A centralized transcribing department lends itself better than does decentralized organization to a progressive assignment of more and more difficult work as the new (and the older) employes become more and more proficient. New operators can go forward step by step until they become qualified for general assignments.

Such a direct path of promotion is of great value in developing employes, as we shall see clearly when we come to our direct study of office-personnel problems (Executive Manual 61) and again when we come to our

major section of this training service on managing men, particularly in Executive Manual 66.

Standardization Underlies Maximum Output. Standardization of the equipment and methods of production was covered in the section on principles of production. Here let us consider the fact that the output of transcribing activities may be greatly increased by standardization.

Standard equipment, standard procedure, standard requirements as to the quality, and the quantity, of output—all tend to promote greater output at lower cost.

But, of course, the opportunity for increased efficiency thru standardization of equipment and methods varies directly with the number of workers who are doing the same kind of work. Obviously, therefore—

Centralized organization makes possible a greater and more effective application of the principle of standardization.

Not only does centralization of transcribing activities facilitate standardization within the centralized group itself but also the standards established therein may usually be passed on to the decentralized groups within the individual departments.

Standardized methods usually go hand in hand with high standards of output. They facilitate fair comparisons of the efficiency of performance.

There are various methods of accurately measuring performance, such as measurement by the square inch or by lines of transcribed matter. The normal speed that can reasonably be expected on various types of work and from various grades of operators can be ascertained by studies and tests. These standards supply the basis for classifying and grading operators, for scheduling and assigning work, and for reports, records, and analyses. Used as a basis for bonuses and piece rates, these standards sometimes prove to be valuable as the basis for securing increased output and lower cost per unit of output.

Establishing Transcribing Standards. Standards of performance can be established only approximately in many kinds of work. This is true of transcribing, wherein the variables are many, including the operators, the classes of work, the dictators, and the working conditions. But workable standards may be set up for various classes of work. Transcribing is usually divided as shown in the following table, which shows the average and the high standards for an eight-hour day in one office.

Class of Work	No. of 6-inch Lines Per 8-hour Day	
	Average	High
Typing from Mss	1,275 lines	1,750 lines
Transcribing with Dictating Machine	1,050 lines	1,500 lines
Transcribing from Stenographic Notes	800 lines	1,000 lines

When it comes to the transcribing work of any one department, very definite standards may be set. When, for example, the work of typing is divided into such tasks as typing the names, addresses, salutations, and the date on form letters; the filling in of form paragraphs; copying addresses on cards; etc., a standard rate of speed can be readily determined for each operation.

The efficient office manager may well take the stand that—

No matter how complex certain activities may appear to be, they may be analyzed and classified in a manner that will make possible the establishment of workable operating standards.

The fixing of standard quotas of output is a fair means of measuring the efficiency of individual employes, and

the individual worker's output per day is increased when he or she knows that a standard has been fairly fixed.

How Standards Facilitate Control. When standard units of measuring output are established, such as the 6-inch line in transcribing, control reports are made possible. These reports, such as the one shown in Figure 2, may be summarized and compared from time to time as a means of controlling standardized office activities. A comparison of weekly or monthly reports will show variations in the efficiency of a department from week to week and from month to month.

One of the great advantages of centralization is that it makes possible a comprehensive recording of work done and of operating costs.

In order to gain the full benefits of control thru standardization, it is obviously an advantage to have centralized organization of similar activities with specialized supervision of those activities.

Supervising the Centralized Transcribing Department. In the centralized transcribing department, the supervisor sends the stenographers to dictators as needed. Some dictators have regular dictating periods, and stenographers are sent to them regularly at these periods. Others call for stenographers as the need arises.

A stenographer who is familiar with the dictator's methods of dictation is chosen by the supervisor, when available. Some dictation is very difficult to take down. The supervisor knows the requirements in giving efficient stenographic service to each dictator and aims to meet those requirements fully.

The efficient supervisor also knows that the length of time one stenographer can efficiently take down dictation is limited, varying with the kind of matter dictated and the method of dictation.

Ordinarily, more than an hour of steady dictation is likely to prove to be too great a nervous strain on the

NAME Helen Shepard									
	Taking Dictation		Transcription		Copy Work			Other Work	Idle
Week Ending	Time in Mins.	From Whom	Total Lines	No. of Letters	For Whom	Total Lines	Time Hrs. Mins.	Time	Time
Mon.	10 75	IRO CGN	26	1	IRO	46	25 min.	5 hrs.	
Tues.	25 15 20	IRO AGA CGN	340	7				2 hrs. 30 min.	
Wed.	25	IRO	95	2	form Let.	317	2-25	4 hrs. 15 min.	
Thurs.	25 30	IRO AGA	173	5	F.L. AGA	257 173	2-30	1 hr. 35 min.	
Fri.	80	OWV	242	2	AGA F.L.	172	65 min.	1 hr.	
Sat.	35	IRO	293	5	IRO	54	25 min.	30 min.	
Total	340		1169	22		1019	6-50	14 hrs. 50 min.	

Figure 2. A report on one stenographer's work during one week. This is one feature in efficiently managing transcribing activities. With production standards established, such a report constitutes a reliable record of an employee's performance week by week. Such reports are the basis of efficient control of these activities.

stenographer. Where dictation is necessarily prolonged, a second stenographer may be sent to relieve the first. This plan also facilitates transcription. More letters are typewritten and dispatched in the early mails and less of untranscribed notes are carried over to the next day.

Such are just a few of the supervisor's duties. The objective of the supervisor is, of course, to render good transcribing service at low cost. This may in some cases lead to the use of more labor-saving equipment, such as dictating machines. It may also mean provision of better working conditions for the stenographic force.

Environment and Working Conditions. In organizing

for low-cost production in the office, ample attention must always be given to environment and working conditions.

A New York firm spent several thousand dollars in decorating and furnishing its transcribing department, and the expense was soon repaid by the improved attitude and the increased output of its stenographic workers.

Heat, light, and ventilation should be given special consideration in the location of the transcribing department. A considerable nervous strain is attendant on all phases of transcribing work. Poorly lighted, poorly heated, and poorly ventilated quarters will decrease the volume and lower the quality of the work.

It always pays well to provide for the health and comfort of workers, particularly those whose work involves nervous strain.

Particular attention should be given to noise prevention. Sound-absorbing coverings for walls and ceilings, felt pads beneath machines, felt castors for chairs, the use of noiseless and seminoiseless machines, and so on, all are, as a rule, good investments in a transcribing department.

Efforts to make employes' surroundings healthful, pleasant, and free from annoying and irritating noises are repaid in an improved attitude of employes toward their work and greater regularity in attendance resulting from better health.

The Method of Payment. The method of payment often has much to do with securing efficient low-cost output, as previously explained in Executive Manual 40.

Some businesses pay a straight weekly wage, while some pay for certain types of work on a piece-rate or salary-plus-bonus basis.

Where the work is well standardized and the output standards have been carefully ascertained, bonus and piece-rate plans of payment will ordinarily prove effective. In a few centralized transcribing departments, the

piece-rate plan of payment is now successfully employed. But in some cases where it has been tried, the results were not as satisfactory as the plan of paying a fair weekly wage, with advancement to a higher wage as proficiency is shown.

This important matter of incentives to good work, including the wage incentive, will be fully considered in Executive Manual 62. Here the main point to remember is that—

In deciding the method of remuneration for any class of work, full consideration should be given to the effect it will have upon attitude and morale of the workers.

Let us next, in Part II, analyze a problem the importance of which is often overlooked—that of efficiently organizing and supervising the communication service as supplied by the office.

PLANNING THE OFFICE SERVICES

Part II

MAIL AND MESSENGER SERVICE

EFFICIENT low-cost communication plays a leading part in the success of every business. Failure to provide the means of fast and sure communication, with few delays, would slow up the progress of any business. For communication between departments and with its customers, suppliers, and others, most business firms depend largely upon their mail and messenger service. Let us therefore analyze the problem of organizing and supervising these two essential services with a view toward finding out how they can be made most effective as means of facilitating business dispatch.

ORGANIZING THE MAIL SERVICE

In an office that receives a small volume of mail daily, the mail may be time stamped to indicate the time of its arrival at the office, sorted, and delivered opened or unopened—all done by a single clerk. But in an office that receives a large volume of mail, a variety of duties each requiring the full time of one or more employes may be required. It may be desirable for the business to do its own handling of its mail from the post office. A preliminary sorting of the personal mail to be delivered unopened to individuals and of mail that is obviously of an urgent nature, from the bulk of routine mail, may be necessary. It may be advisable to open all but the personal mail in the mail department, and also to remove and examine the contents of the envelopes; then route each letter as directly and promptly as possible to the department or individual who should first handle the communication.

The Routine in Handling LaSalle Mail. The routine, in which all these services are performed, is well illustrated

by the activities of the incoming-mail section of the mailing department of LaSalle Extension University.

A LaSalle mail truck picks up all University mail at an outlying branch of the Chicago post office. In order to insure that mail shall be obtained at the earliest moment, the first special collection of mail is made at 1 A. M. This early mail is sorted immediately so that it can be delivered to the various offices and desks on the first morning messenger delivery.

All collections of incoming mail are first subjected to a preliminary sorting. Mail to the principal executives, letters to the sales departments (usually in special envelopes), and all mail that is obviously of a special nature, are separated for immediate delivery. In the case of the 1 A. M. mail, the night clerk delivers the special mail before the opening hour.

The routine mail is divided into one-pound packages. This has been proved to be a quick method of counting, since it has been found that the count closely approximates an average of forty-eight pieces of ordinary mail to the pound. Each pound package of routine mail is opened by a mechanical opener that chops off the edge of the package. The pound packages of opened mail are then delivered to clerks who sort it and pass it on to the readers. The readers stamp each piece with a routing stamp—very much like that shown in Figure 3—and check on this stamp the departments concerned; then the readers pass it on to the messenger section, where it is sorted for delivery.

Of chief interest to an office executive is the fact that—

It is often possible to shorten materially the time taken to reply to a letter, and to insure that action upon it will be complete, by speeding up the collection of incoming mail and the delivery of it to points where it is to be handled.

Insuring Complete Action on Correspondence. To make sure that correspondence is acted upon promptly and

Order	To		Cleared
1	✓	SALES	
		PURCHASING	
3	✓	PRODUCTION	
		ACCOUNTING	
		FILING	
		RECEIVED Mailing Department (Date and Hour)	
		VOUCHER	
		CLAIM	
2	✓	CREDIT	
		ADVERTISING	

Figure 3. The Mail Routing Stamp. This form stamped on each piece of routine mail matter indicates the time that the letter is received in the mail department and the order in which the piece is to go for attention to the departments which must handle it. Each department is required to stamp the time out. Thus control of the movements of each letter is established.

completely is a problem that concerns more than the mailing department alone. It is a problem that no business should ignore.

Some companies seek to make sure that action is complete by having correspondence groups which do all the corresponding with customers. This centralizes the responsibility.

Reading and routing the mail plays an important part in solving this problem. The readers of the mail, for example, watch for—

All references to inclosures that may have been left in the envelopes by the clerks who opened the mail, or may have become separated from the letters.

All notations of changes in addresses and other important details that might easily be overlooked in the subsequent handling of the letters.

All special matters, such as inquiries and complaints, that should be referred to proper departments or executives for special consideration.

All references to former correspondence or transactions which make it necessary to secure material from files.

Intelligent girls with a high-school education or better can be trained to read mail very rapidly. In reading ordinary business correspondence, they can attain a rate as high as two hundred letters an hour.

The routing of the mail by these readers is an important factor in securing prompt and complete action in replying to letters. One method of routing, previously mentioned, is to stamp all incoming letters with a list of departments, as shown in Figure 3. After reading a letter the reader checks on this stamped form the department or departments to which that letter shall go for action. When a department forwards a letter to another department, the time of forwarding—the day and the hour—is inserted on this form in the space at the right of the name of the forwarding department.

Upon filing a letter, the record on the stamped form is checked to make sure that all departments concerned have acted upon it. If the letter has been incompletely handled, the file clerk does not file it; she sends it to the department where it should have had attention, but apparently did not get it. Note that the order of movement to several interested departments may also be indicated on this time-stamp form.

Handling the Outgoing Mail. In a small office, the stenographer, clerk, or office boy can stamp and seal the letters and take them to the mail box or mail chute. But in a large office, it is usually necessary to arrange for regular collections of outgoing mail, and to have it stamped and sealed by clerks charged with that special responsibility. Stamping and sealing may be done by machine if the daily amount of outgoing mail is very large.

In a well-organized office, executives and correspondents are relieved of any further attention to their letters once they have signed them.

The employe in charge of outgoing mail should be fully

informed about postal regulations. The importance of this information is illustrated in the case of an advertising manager who designed a special return post card to be sent out with a circular letter. The return card carried a one-cent stamp. When the card came to the attention of the manager of the mailing department, he saw that it was oversize. It would not be classified under the postal rules as a post card, but would have to go as first-class mail carrying a two-cent stamp.

Every organization with large mailings should have some one individual responsible for the inspection of outgoing mail to make sure that it conforms to postal regulations.

This inspector of outgoing mail must get the co-operation of others in meeting the need of conforming to postal regulations. Office management may well see to it that others in the organization understand the more important postal rules, and refer to them when in doubt.

The mailing department manager should be able to take advantage of railway mail schedules and routings. By dispatching the mail by the routes and trains that will carry it to its destination most quickly, the time of transit to the addressee can be shortened. This saving of time may frequently result in important advantages to a business. People in general desire to have prompt replies to their letters. The amount of good will that will soon develop by satisfying this desire is appreciable. In general—

An important function of office management is to speed up the interchange of business communications.

The Part Played by Machines and Devices. Machines and devices play an important part in the speedy handling of mail.

Most mailing departments that receive relatively large quantities of incoming mail use a mail opener, either hand or electrically driven.

If outgoing mailings of folded material are heavy, as in direct-mail sales circularization, a power-driven, self-feeding, folding machine may often prove to be a good investment.

Various devices for stamping and sealing envelopes are available; they stamp and seal in one operation. The mailometer, for example, carries rolls of one thousand stamps; it stamps, seals, and counts the envelopes. The postagemeter prints a precanceling impression in the upper right-hand corner of the letter. This machine contains a special authorized meter to which the post office holds the key. This meter may be removed from the machine and taken to the post office, where as many impressions as may be desired can be purchased.

The advantage of the postagemeter is that precancellation speeds up the handling of outgoing mail at the post office. Furthermore, if the precanceled mail is sent to the post office in bags already marked for destination, the mail will go directly to the trains without handling at the post office. If, for example, all mail matter to post offices in the vicinity of Buffalo, N. Y., are put into a sack labeled "Buffalo Terminal Railway Post Office, Buffalo, N. Y.," these sacks will go directly to the mail trains, and at the Buffalo terminal they will be opened and the mail dispatched directly to destinations.

Where the volume and nature of outgoing mail justify it, time can be saved by sorting the mail by destination or train routes before sending it to the post office.

Unless the value of the time saved outweighs the cost of this sorting and packing in mail pouches, however, it would, of course, be better not to relieve the post office of its work in sorting a concern's outgoing mail. But the amount of time saved by this action is often considerable. Many large firms therefore do their own sorting, by destination, of outgoing mail.

In parcel post mailing, special scales may be used that

automatically indicate weight and the amount of postage by zones.

Such are some of the machines recently invented to help speed up and reduce the cost of handling outgoing mail.

The Duties of a Mailing Department Manager. Thus the manager of a mailing department has some important responsibilities. He can add materially, tho indirectly, to net profits as a result of good will developed by prompt and complete handling of a firm's correspondence. He can speed up the handling of both incoming and outgoing mail. This requires efficient organization and operation of the mail-handling routines, including the use of special machines wherever these prove to be a good investment.

His duties embrace co-operation with all departments of a business. He must make sure that mail matter is correctly routed, so that each letter will go to the right department or individual in the business for prompt handling. He must be well informed as to postal regulations, and should encourage other department managers to consult him when in doubt concerning postal classification of important mailings. He must also keep informed about outgoing mail-train schedules, and he should encourage correspondents in the house and salesmen out on the road to take advantage of train schedules. He must never lose sight of the fact that his objective is to facilitate as much as possible the prompt and complete handling of mail matter.

ORGANIZING THE MESSENGER SERVICE

Let us now summarize the main points to be considered in organizing and supervising the house messenger service, which serves as one means of communication inside the business, including:

1. The regular delivery and collection of mail, file papers, and other documents that travel from one place to another within the business.

2. Outside errands.

When a company's messenger boys or girls are loosely organized, or are assigned individually or in small groups to different departments, we are likely to find considerable waste and inefficiency. Many firms find that it pays to have the messenger service well organized, and particularly to have it centralized under single supervision.

The advantages of a centrally organized messenger service are—

More effective supervision resulting in greater efficiency on the part of messengers.

Elimination of much of the waste time that abounds when messengers are assigned to individual departments.

Creation of a reserve for use on special messages and on routine clerical work, such as filing, sorting mail and papers, etc.

More regular and prompt deliveries of mail. An even and regular flow of mail and other house documents promotes continuous and better-balanced production thruout all parts of the business.

More effective functioning of centralized transcribing and filing departments.

Routing the Messenger Service. Messenger routes should be systematically laid out in order to keep the actual travel by messengers at a minimum. Maximum service and minimum travel are the aim.

Where an office occupies a large building, a messenger's route usually is confined to one floor, with one or more messengers specializing on transferring deliveries from floor to floor.

Advantageous locations for "in" and "out" mail boxes thruout the office or plant should be carefully studied, and the routes taken by messengers in going from one box to another should be carefully worked out to give maximum service with minimum travel.

What Shall the Messenger Carry? While it is usually advisable to have each messenger combine deliveries with collections, it is not advisable, as a rule, to permit sorting

the mail as it is collected. This delays the messenger on the route and is likely to lead to mistakes. Some managers feel that even combining delivery and collection is inefficient, because incoming mail is so often confused with outgoing mail. Furthermore, when the mail is heavy, it may be burdensome for the messengers to deliver and collect at the same time. Separate trips for delivery and collection are often most desirable.

In large offices where telegraphic communications are frequent, it is well to have special trips for the collection of telegrams only.

Light fiber-board cases, with broad leather straps that go across the shoulder, are frequently used as "mail bags." If deliveries and collections are combined, these cases can be divided into compartments into which the inter-departmental mail can be sorted by departments as the messenger proceeds on his route. One large compartment in the case can be used for outgoing mail.

Efficient office management recognizes the fact that—

In supplying messengers with equipment for handling the mail expeditiously and accurately, time is saved and mistakes in handling are decreased.

Sorting racks or frames may be needed. For sorting large packages, tables divided into bins are desirable. Two sets of messengers' carrying cases can be used, so that while the messengers are out with one set, a sorting clerk can be at work on the other set.

Messengers can usually be steadily employed on varied kinds of clerical work during the periods when they are not on trips or errands.

Control of Messenger Service. A check on regular deliveries and collections is obtained by watchfulness on the part of the departments served. When members of a department notice that messengers are missing trips, they should report this negligence to the manager or supervisor of the messenger service. Occasional investigations of the messenger service can be made by the supervisor.

Some companies attempt to secure a definite check on the messenger service by placing a card in each mail box and requiring the messenger to stamp this card with a time recording stamp each time he comes to a box. This may be desirable where prompt and regular collections are exceptionally important in maintaining a definite schedule of work thruout the office or shop.

Records of special calls for messenger service may be kept in order to have a check on excessive calls for this service in any department.

Such are some of the principal considerations in organizing and directing this important office service. Let us now, in Part III, briefly analyze the filing service supplied by an office.

PLANNING THE OFFICE SERVICES

Part III

MAKING RECORDS ACCESSIBLE

CORRESPONDENCE and other records and documents are filed for future reference. The importance of filing is easily seen by trying to imagine an office without this service. In even the smallest of offices, filing is an indispensable service. It includes the elimination of all papers that do not have future reference value, as well as the accurate filing of all papers that either will or may need to be referred to in the future.

Efficient filing makes immediately accessible all material that is filed. The true test of filing is finding.

In the organization of a filing system that makes finding sure and easy, the first step is proper classification of the papers that are filed.

Classifying Material to Be Filed. There are three general classes of material that come to the filing department, as follows:

1. Material to be destroyed immediately.
2. Material to be destroyed after a period—after three months, six months, or a year, etc.
3. Material to be kept indefinitely.

It is apparent that the person who thus classifies material to be filed must be capable of judging correctly the classification of each paper that is sent to the files. The correspondents make this classification in some cases, for often they alone know the future reference value of the correspondence that passes thru their hands. In general, however, this work is intrusted to an especially competent inspector.

Against the possibility of an occasional request for material that has been destroyed according to a set program, must be weighed the expense of burdening the files

with masses of material that in all probability will never be referred to again. But, of course, the decision to file or to destroy papers that are ready for filing must favor the filing of every document for which there is any likelihood of future reference, particularly so if a document would in all probability cause a serious loss were it unavailable later on and if it could not be replaced—even tho there is little likelihood that it would be wanted later on.

This problem of deciding whether material should be filed or destroyed is simplified by securing a decision on the matter from the executive who is most directly concerned. Each responsible employe should be trained to send promptly to the file all current material to which further reference is likely to be made and to destroy all material which assuredly has no future value.

Centralized Filing Is Desirable. Much of the material that should be filed and readily found, but cannot be found when wanted, consists of so-called personal material with which individuals are loath to part.

Some executives have the habit of keeping important papers in their own desks instead of putting them in the file. Department managers sometimes build up separate departmental files beyond the actual needs of their departments. They usually accumulate much more uselessly filed material than would be accumulated in a central filing department that is specifically charged with the responsibility of keeping the files free of material that has no future value.

Centralized filing makes possible an effective specialized supervision of what goes into the files.

But perhaps the most outstanding advantage of centralized filing comes from the fact that all filed papers are kept in one general file. This facilitates interdepartmental references; it makes for completeness of reference on any case; it reduces the risk of lost records—it makes

finding easy. Altho smaller departmental files are often necessary, the records that go into them should be such as could be of interest only to the department that maintains the file.

The Filing Method. There are four basic methods of indexing filing material: alphabetic, geographic, numeric, and subject.

Where the reference is directly by the name of individuals or of firms, as in the case of direct-mail sales records and follow-up, and in the case of personnel departments which deal directly with individuals, there can be no question of the advantage of the alphabetic method.

Alphabetic filing has the advantage of being the most natural method. From childhood the mind is accustomed to going from A to Z.

With the alphabetic method no cross index is needed, and the misfiling of correspondence is least likely to occur. The difficulty of having unwieldy subdivisions in cases where a large quantity of cards or correspondence is filed may be met by filing alphabetically by the first two, three, or even four or more letters of the name. Ease in filing and speed in finding may be gained by the use of the guides.

With sales and collection correspondence where the work is divided geographically, the geographic index is widely used; that is, the records are filed by state, county, town, etc. Within each of the smallest geographic zones or units in the file, such as towns, the correspondence or records are usually arranged in alphabetic order, with alphabetic guide sets for each subdivision. Also, the geographic divisions are arranged alphabetically.

Under the numeric system each correspondent or subject is assigned a file number, and the filing folders are arranged consecutively by numbers. Reference to the individual folders is given in an alphabetic card index to the filing numbers. This card index may be arranged alphabetically by subject or by geographic divisions.

The numeric system is found in insurance offices, where filing is by policy number; in savings banks, where filing is by account number; in law offices, where filing is by case or docket number; in architects' offices, where blue prints and tracings are filed by number; also in advertising offices for filing cuts and drawings.

Sorting and filing by the numeric method are easy and rapid; file clerks of less training and education can be employed than under alphabetic filing. But mistakes in filing are comparatively more frequent in numerical filing, and they are somewhat more difficult to correct. However—

The numeric system can be employed advantageously where various references to a single name or subject are made.

Subject filing is the method ordinarily employed in a purchasing department, where filing is done by the names of commodities, and in contractors' and architects' offices, where the correspondence and papers naturally group themselves under "construction materials," "contracts," or "jobs." In many Government departments and in public-utility companies there is a similar natural grouping of papers by subjects.

The subject index should be prepared by someone thoroly familiar with the special characteristics of the business. Unless the material to be filed naturally and logically falls into definite subjects and unless it is necessary to refer to the filed material by subject, as in the case of consultation material, filing by subject will prove cumbersome and difficult. Clerks of a high grade of intelligence are required to operate a subject file. The various subjects are filed either by the simple alphabetic system or by the numeric system supplemented by a card index arranged alphabetically by subjects.

SELECTING FILING EQUIPMENT

Vertical filing cabinets are best suited to ordinary filing purposes, such as the filing of correspondence and routine

papers. Made in sectional form and in various sizes, vertical filing cabinets meet the varying needs for expansion or contraction of the files.

Analysis of Factors to Be Considered. The factors to be considered in selecting filing equipment are—

Floor-space requirements.

Durability.

Rigidity.

Ease of operation.

Noiselessness.

Appearance.

Capacity.

Special equipment for aiding operation of the files includes—

Tables equipped with sorting racks.

Sorting tubs.

Filing shelves.

Some materials to be filed, such as periodical reports, purchase requisitions, original sales orders from customers, etc., can be more readily handled if filed in loose-leaf post binders. This method of filing is convenient, particularly in cases where any one piece of the material filed may be referred to again and again, and especially where records are made up by reference to the material filed.

The Use of Guide Cards or Tabs. An important consideration in all filing is the fact that—

The time spent in filing and in finding is greatly reduced by using an adequate number of guide cards or tabs.

A good rule to follow for current active files, either letter correspondence or card files, is to have one guide separation for each fifteen or twenty folders or names. As files expand, the index of guide cards or tabs should be enlarged accordingly.

Manufacturers of filing supplies employ specialists to aid and advise buyers of filing equipment in the selection and use of an adequate index.

OPERATING THE FILES

When several filing clerks are employed, it is usually good practice to allot a definite section of the files to each clerk. This enables a clerk to become familiar with the files he operates, and it fixes upon each clerk more definite responsibility for care and accuracy in filing.

In one large organization where filing is done under the numeric filing system, the filing department consists of—

1. An inspector who examines all incoming material, rejects material that should not be filed, and picks out material that should go in special files.
2. A sorting clerk who sorts the material numerically and divides it by the divisions of the files.
3. A schedule clerk who assigns the work by standard work units, and who records all material as it is given out to the filing clerks.
4. The filing clerks, each of whom is assigned to operate a definite section of the files.

Whether the files are large or small, filing operations should be standardized; that is, a definite and fixed method of filing should be followed.

When the quantity of material filed is large, it usually pays to divide the work into standardized units, each unit representing an hour's work for a file clerk. The schedule clerk records the material by work units as it is given out, and keeps a careful check, thru control reports, of the activity of the individual clerks.

Standard "Output" of One Filing Clerk. The following table gives approximately the number of pieces that can be filed by one clerk during an hour under good working conditions and with material delivered to the clerk ready for filing.

Letters	Folders	Cards (Guide System)
85 per hour	135 per hour	335 per hour

The above figures are each one hour's standard "output" where papers have been sorted in filing order previous to the filing operation. The correspondence filing operation includes locating the filing position in the files, comparing name and file number, unpinning correspondence, placing the new material in chronological sequence within the folder, replacing pin, and inserting folder. Those are the normal routine activities in the careful filing of correspondence. Fewer routine activities are required, of course, in filing folders, and still fewer are required in filing cards.

Time Tests Essential to Determine Filing Efficiency. The comparative effectiveness of various types of equipment and of various methods of operating the files can be accurately determined in very many cases only thru time tests.

When a file is well supplied with guides, it may not be necessary to file all material in straight alphabetical order between the guides. The time saved in filing as compared with the added time taken in finding, determines the necessity.

A test made by one filing department in operating a file consisting of cards that were being constantly drawn out and reinserted, resulted as follows:

With strict alphabetical filing between the guides, the time taken in *finding* was 25 per cent less than without strict alphabetical arrangement between the guides. But without requiring strict alphabetical filing between the guides, the time taken in *filing* was about one-fourth as long as it was when the clerks were required to file alphabetically between the guides. Thus the saving in filing time that came by inserting the cards between the guides without regard to their alphabetical order far overbalanced the time saved in finding by using the alphabetical arrangement between guides. In other words, there was a decided net saving in time to be gained by filing the

cards without alphabetical arrangement between the guides.

The main point to be remembered is that—

The right choice between different methods of filing can be made, in some cases, only thru exact time tests.

This principle is essentially the same as that applied in scientific production in a factory where time and motion studies are made to determine the one best way of performing an operation, as fully explained in the major section of this training service that covers the principles of production.

Safeguards Against Misfiling. One effective method of preventing misfiling is the card check. As material is filed, the clerk inserts in the folder, just before or behind the papers filed, a colored card which projects above the folder. Then an inspector goes thru the files and checks each folder in which a card protrudes to determine if the papers have been correctly filed. This, of course, is an expensive method that may not justify itself unless exactly correct filing is exceptionally important.

Another check on misfiling is the plan of having one group of filing clerks find the right place in the file and place the material to be filed in that place endwise, so that it projects up over the other filed matter; then having another group of filing clerks check the accuracy of this placing and turn the material on its side, thus completing the filing operation. This method of checking against filing errors was previously mentioned in Executive Manual 6.

Another point, previously suggested, is embodied in the important fact that—

Any method of securing accuracy should have as its basis the definite fixing of responsibility.

In filing, this is done by assigning each clerk to a definite section of the files; or it may be done by having the clerk initial or stamp each item filed.

Withdrawing Material from the Files. As material is given out from the files, a charge slip may be inserted in its place. This charge slip should project above the folders so that it is a reminder of the withdrawn material. Then at fixed intervals these charge slips can be inspected and notices can be sent to all those who are holding material out of the files longer than the schedule allows. On each charge slip, of course, is recorded the name of the department or the individual to whom the material was sent, and the date of withdrawal.

Transferring Inactive Material. As material in the files grows old and becomes inactive, it is usually either transferred to the inactive files or destroyed.

It is customary in many concerns to use the top rows of the filing cabinets for active correspondence, and the bottom rows for older correspondence. At the end of a predetermined period, as six months, the correspondence is transferred from the bottom rows of drawers to transfer cases, and the material in the two top rows is transferred to the lower drawers.

Another method of transfer is to have files that cover a period of one year; then at the end of six months, to put in the files new folders of a different color, for the correspondence of the second six months. At the end of the year, the folders which are six months or more old, as indicated by their color, may be removed from the files and transferred to storage. But the main point for executive consideration is that—

A method of transfer should be selected which keeps the files reasonably free from inactive material.

Unless this is given careful attention, the files become clogged with inactive material, requiring more clerical labor than necessary in filing and finding, and increasing the chance of error in filing.

THE USE OF CARD FILES

There are files of various kinds of material in nearly

all offices, such as original letters received, carbon copies of letters sent in reply, price lists, catalogs, and so on, that are bulky and clumsy to handle. The quantity of filed matter is so large that finding a particular letter or other document is often difficult. In order to facilitate finding in such cases, the numerical filing system with a card-index reference to numbers may often be profitably used.

There are many kinds of card files—files of bank-ledger cards, of signature cards, of stock cards, of cards summarizing the facts contained on larger records, and other kinds. Their purpose, in general, is to enable the business to supply filed information quickly.

The Visible Index File. One development of the card file is the visible index. The cards are inserted in hinged frames or trays. The top or bottom of each card is visible and the identifying name or number is written on this visible part of each card. Thus the card desired is quickly located by running the eye down the list. These visible card-filing systems can be had in rotary racks consisting of panels from which the frames hang vertically, or in cabinets, or in shallow pull-out drawers in which the panels lie flat.

Devices for automatically locating individual cards are coming into use. The cards are mounted on holders attached to keys which, when pressed, elevate the cards desired, thus making in effect a visible index.

Card files offer the advantages of small space requirements, greater ease of manual handling, and adaptability to mechanical handling.

Follow-up and Tickler Files. Another important use of cards is in making up and maintaining a follow-up file. A card file may be used, for example, in following up matter that is to be either withdrawn from or returned to the general files. Each card may represent a folder or a set of correspondence or other matter to be withdrawn on the specified date. The card is filed behind a

tab for the day of the month on which the material should be withdrawn. Each morning all cards behind the tab for that day are brought out, and these cards serve as requisitions to the filing clerk for material to be withdrawn from the files. Then the same cards, refilled, may serve as a follow-up tickler to make sure that the material is returned to the file, if it is to be returned.

Cards may be made with protruding tabs at the top edge, spaced to indicate thirty-one days of the month, to serve as guides; or a small steel signal or clip may be attached to the top of the card at the space bearing the required out or in date. By following down the line of signals in the card file for a particular day, the clerk quickly locates the cards which require attention on that day.

Such a tickler or follow-up system is a necessity in most offices, whether it is made on cards or on folders or in some other way.

Follow-up should be so organized that executives and clerks shall have matters for future attention automatically called to their attention at the proper time.

In meeting this general office requirement of having matters for attention called to the attention of the proper department or individual at the right time, one practice widely followed is that of having the reader in the mailing department, in the first reading of the letter, make note of what materials from the files, if any, should be attached to each letter before it goes to the executive or other employe for attention.

If an incoming letter says, "I want to refer you again to my letter of the 19th," it is quite likely necessary that the correspondent have this letter of the 19th in order to handle the correspondence. The mailing department reader therefore makes a notation that the former letter be taken from the files and attached to the current letter

before it goes to the correspondent for handling. Thus the correspondent is saved the effort and delay of having to send to the files for the material referred to before he handles the case.

Shall Filing Be Centralized? To what extent shall filing be centralized in one department and placed under the control of one executive?

The answer, of course, is to centralize the filing just as far as practical, for the many advantages and economies of centralization of office services previously pointed out, apply to the filing service as well as to transcribing or to the mail and messenger service.

While it is not desirable to remove from an individual department files of material that are in constant use in that department, yet in many cases material held in one department could profitably be held in centralized files, where more specialized attention to its filing would result in at least as good filing service (usually better) and at lower cost. In any event, where material is filed here and there thruout a business office or plant, there should usually be one centralized control. In case of doubt about retaining any material in the individual departmental files, preference should be given to placing it in the central or general files. Furthermore, the one in charge of the central files should usually know what is filed in the decentralized files thruout the business.

A relatively large office can, as a rule, profitably have one executive charged specifically with the responsibility for efficient filing thruout the business. This will insure proper co-ordination of file service between the operating departments and the central file department, the general introduction of standardized filing procedure, the adoption of the most desirable filing equipment, and, in so far as possible, the maintenance of uniform control.

A sufficiently complete picture of the filing problem has been given to make it clear that efficient manage-

ment of the files requires a thoro command of operating principles and technique. Let us now, in Part IV, take up the remaining two office services—duplication of written and printed matter, and the supply service.

Functions of the Filing Department

1. **Classify materials as to their fitness for filing:**
 - (a) Whether to be destroyed immediately.
 - (b) Whether to be kept for a time only.
 - (c) Whether to be kept permanently.
2. **Maintain a filing system for material selected for filing.**

(See to it that all materials and information that should be filed are accurately filed.)

 - (a) Maintain files of original documents and records.
 - (b) Check up on material for filing.

(See to it that no letter is filed until it has been given complete attention.)
 - (c) Maintain follow-up files.
3. **Reference to the files.**
 - (a) Produce quickly from the files the materials and information asked for.
 - (b) Take the initiative in producing from the files the materials and information helpful to those who may need them.
4. **Maintain the efficiency of the files.**
 - (a) Regularly remove inactive materials from the active files.

PLANNING THE OFFICE SERVICES

Part IV

THE DUPLICATING AND SUPPLY SERVICES

THE large amount of duplicating and printing work required by the office was suggested in our previous analysis of dispatch routines. Sales order sets, purchasing and receiving forms, voucher forms, billing sets, requisitions, card records, memorandums of every sort, manuals, instructions, bulletins, form letters, and advertising and sales literature are a partial list of the duplicating and printing requirements. In almost every office the ways and means of securing duplicated and printed forms and material is a problem of considerable dimensions.

DUPLICATING DEVICES

There are various types of duplicating devices, with differing fields of usefulness for each type; and an office executive must, of course, understand these devices and their uses at least in a general way.

In selecting duplicating devices, as in selecting any other machinery or equipment, the applicability of any one device to the specific needs of an office can be accurately determined only by thoro investigation and comparative tests. But here let us briefly classify the types of duplicating devices and their particular uses.

The Carbon Duplicators. First consider devices that duplicate by using carbon paper or ribbon, including typewriters and flat-bed writing machines operated with a regular typewriter keyboard.

In addition to their use for general correspondence, typewriters are used for cutting stencils (for use in mimeographing); for producing original and carbon copies of reports, bulletins, and instructions; for filling in ruled

forms; and in making out manifold order sets, billing and purchase sets, etc.

The flat-bed writing machines are used for all kinds of billing and order writing, for making delivery receipts, and for filling in ruled forms, card records, production orders, bills of lading, requisitions, etc.

Much of duplicating in the office, especially where relatively few duplicates are required, is done by the use of so-called carbon duplicating devices.

Hectograph Ink Duplication. For making many copies of work, including ruled forms of all kinds, engineers' and architects' specifications, sketches, tracings, surveys, etc., reproduction by means of hectograph ink applied to a gelatin copying surface is the simplest method.

In this duplicating method, a master copy is made either by hand or by a typewriter equipped with a hectograph ribbon. This master copy is laid face down upon the gelatin surface, and is left there until the gelatin has absorbed the hectograph ink. The blank sheets of paper pressed on this gelatin surface take the ink impression from the gelatin. As many as fifty or seventy-five copies may thus be made. This method of duplication is speedy, satisfactory, and inexpensive.

Mimeograph or Stencil Duplication. An improvement on duplication by the gelatin copying surface is reproductions made by a derma-type stencil cut by hand with a stylus or by the typewriter. Hundreds of copies may be made from a single stencil. Stencils cut by the typewriter give impressions that look very much like typewriting.

A special advantage of the stencil process is that the stencil may be preserved, indexed, and filed away for future use.

The Multigraph. The multigraph is a special machine with a rotating cylinder which, set with type and inked by a ribbon, turns out quickly any quantity of duplicates.

Typewriter-type faces are used to give an exact imitation of typewriter type. The use of the ribbon makes the resemblance to original typewritten work very close.

A further advantage of the multigraph is that for form letters, where the duplicated signature is desired, a signature plate can be made, and the imprint secured, in the same or in a different color, simultaneously with the impressions of the letter itself.

Whenever typewriter type is desirable and the size of the printed surface desired is within the dimensions of the maximum sheet that this machine will print, the multigraph makes a satisfactory printing device. For direct printing, a printing ink attachment is used.

Thru the use of a vertical segment the multigraph will imprint business cards, envelopes, and postal cards. Like the stencil, multigraph composition may be kept standing for reuse, altho it involves added investment for type; or plates may be made from the set type, releasing the type for other use.

The Multicolor Machine. Another special machine which prints as many as three color impressions simultaneously is the multicolor press. It can be used, for example, to print a letterhead in one color, the body of the letter in another, and the signature in a third color. Since it prints from flat cuts and half tones as well as from type, it is valuable in preparing sales and advertising literature. This method of duplicating gives about the same result as printing in the regular way. It is really a small and simple printing press, and it is capable of doing very fast work.

The Automatic Typewriter. For making an unlimited number of actual original copies of typewritten letters, the automatic typewriter has been invented. It is an electrically driven typewriter which is operated by the use of a perforated roll similar to a player-piano roll. The names and addresses of the letters are filled in by

hand. Other individual words or paragraphs may also be filled in by hand in using this machine. Its main advantages are two: perfect matching of filled-in name and salutation or special data in the body of the letter is possible, and the cost of producing actual individually typewritten copies is lower than when this is done by typists.

Addressing Machines. Many offices are now equipped with addressing machines, which automatically print names and addresses on envelopes, catalogs, folders, invoices, and statements, and other lists of names and addresses. The names and addresses are cut on metal plates or stencils and are filed for printing in any order that may be desired.

Photographic Reproduction. For certain types of records, such as legal documents, insurance policies, and originals of important manuscripts, absolute facsimile reproduction may be necessary. This can be obtained by the use of special photographic devices such as the cameragraph, the rectigraph, and the photostat.

Unless the amount of photographic reproductions to be made is large, it is usually best to have such work done outside. Documents and records to be reproduced can be sent out to photographic concerns that specialize in such service. But in companies that have a great many important records that must be reproduced, such as insurance companies and abstract and title companies, the purchase of such equipment is justifiable.

Blue Printing. The blue-printing process affords a means of securing copies of drawings and specifications, or even of typewritten copy, in large numbers. In this process, a master copy is made on translucent paper or cloth with opaque drawing ink.

This process lacks the advantage of actually photographing the original, as is done with the photostat. Moreover, the blue prints are made upon thick heavy

paper and may not present as neat an appearance as desired. But blue prints cost less than photographic prints: the machines cost less and they can be operated at lower cost.

For many purposes where extreme neatness of appearance and facsimile reproductions are not essential, blue printing is desirable.

Organizing the Duplicating Service. Some types of duplicating work, such as the manifolding of bills and order sets, can be done most satisfactorily in the individual departments. Wherever the volume of billing or order writing is large, placing the duplicating equipment in the department requiring the service will prove economical.

But many other duplicating activities serve various parts of the business, and these may well be centralized. Altho the volume of the work may not warrant establishing a duplicating department, as such, this work can often be handled in a transcribing or filing department. To assign the duplicating section to the transcribing department until it grows large enough to justify the establishment of an independent duplicating or printing department—is a frequent solution of the problem.

Sooner or later in a growing organization, centralization of duplicating activities will prove desirable from the viewpoint of both economy and standard of quality.

A duplicating department should be adequately supplied with equipment for producing quickly the quantities and quality of duplication desired.

THE OFFICE SUPPLY SERVICE

In addition to office equipment that is purchased from time to time as needed, such as duplicating and filing equipment, various supplies that are needed are constantly coming in. There is also the problem of controlling the stocks of office supplies in order to avoid waste. This problem raises the necessity of analyzing the sources

or causes of waste thru loose purchase and control of office supplies, as follows:

Uneconomic small-lot buying.

Failure to ascertain type of supplies best adapted to specific uses.

Lack of adequate inspection and tests.

Lack of effective control over stocks.

Extravagant use of supplies.

Lack of adequate supply service.

At the basis of an economical purchase program comes a study of the needs of the entire organization for all manner of supplies, in order that the styles and grades can be standardized and their variety reduced to the minimum consistent with the actual needs. By reducing to a minimum the styles and grades of supplies used, they can be bought in larger lots at lower prices, and the problem of testing to determine the best kind of supplies to buy is simplified.

Centralizing the purchase of supplies aids greatly in standardization. Adequate testing of paper stock, of carbon paper, or of inks, for example, necessitates a constant study and a technique which is not likely to be developed until responsibility is definitely centered in a department or in an individual. When to testing is added the responsibility for the standardization and purchase of binders, cabinets, and other equipment and devices, a problem of considerable proportions is presented.

Many progressive companies are establishing departments which devote their time entirely to the study of improvements and developments in supplies, equipment, and devices. These departments subject new supplies under consideration to thoro testings and demonstrations. In some cases considerable laboratory testing equipment is employed on tests which determine what particular kind of paper or ink or other office supplies to buy.

Equally important is attention to the storing of office supplies. It is, in fact, much the same problem as that

of storing factory supplies and materials, as previously covered in the section on principles of production.

Thru supply ledgers or card records, a clerical control of supplies should be set up which will give a running inventory at all times and show carefully established minimum and maximum limits, about the same as in purchasing and storing raw materials for factory use.

Figure 12 in Executive Manual 36 shows a perpetual inventory card that is suitable for use with stationery and supplies.

Supplies should be issued only upon requisition, and records of withdrawals by departments should be maintained in order to detect any cases of excessive withdrawals.

Considerations in Organizing Stationery Supplies. One supply problem to which special attention is usually given is that of stationery, including cards and ruled forms as well as correspondence stationery. Here the problem of standardization is very important.

Where a printing department is established, the stationery supply department will ordinarily be closely connected with the printing department.

A few primary considerations concerning stationery control follow:

The dimensions of all sheets for correspondence and all ruled forms should be such as to permit cutting from the standard stock sizes of paper without loss.

In the actual make-up of forms, a careful positioning of captions and horizontal lines to cause the form to space naturally in the typewriter is necessary.

The printing on card forms should parallel the grain of the cards, so that the cards will bend with the grain as they are put thru the typewriter.

Forms and cards should be of dimensions that fit the standard filing drawers and cases.

Duplication or near duplication of forms should be avoided.

In many companies, all requisitions for printed forms are referred to a stationery or printing committee, which

maintains a record of all forms approved, checks with this record to avoid duplication, and studies all new forms submitted to determine the most effective and economical design.

Reducing the Cost of Supply Service. Supply service includes such services as the delivery of supplies upon requisition; correctly arranging the forms in sets, with carbon inserted; punching forms and sheets for binders; making up pads—sometimes even going so far as the manufacture of typewriter ribbons, ink, mucilage, and paste.

When the collation of forms, punching and slotting sheets, ironing and restoring carbon paper, the re-inking of multigraph ribbons, and so on (work that stenographers and secretaries would otherwise do) is assigned to clerks in the supply department, who work at a comparatively low salary rate, the cost of the supply service is greatly reduced.

Organizing the Supply Delivery Service. Deliveries of supplies can be taken care of by the regular messenger service. Where a considerable delivery problem is faced, however, a special supply messenger service can be maintained.

One form of delivery service which large organizations use to advantage is regular trips for filling inkwells. When these trips are made, the inkwells in use may be replaced by newly filled wells, and the replaced wells returned to the supply department for washing and refilling.

The Repair Supply Service. In the same way, a special service for the maintenance and repair of typewriters and other devices may be established. Some large organizations maintain machine-repair departments which keep the devices and machines oiled and cleaned and in good repair; they make special parts, and manufacture such minor materials as rubber stamps, typewriter ribbons, etc.

In general, a modern office supply service determines what supplies are needed, requisitions the purchasing department for them, inspects them on arrival, stores them adequately, keeps records of the balance of supplies in store, provides for efficient distribution of supplies when and where needed, and may include a repair service.

* * * * *

In concluding our brief analysis of the planning of office services, let us remember that the principle of centralized organization applies to them, just as it applies to the purchase and the storage of factory materials and supplies, to personnel activities, and many other activities outside the office. Let us remember that all the basic principles of efficient business management as brought out in other sections of this training service apply also in office management, including the principle of specialization which lies back of centralization.

In the next executive manual we shall take up the part played by the office in facilitating a phase of management that is rapidly assuming great importance in growing business concerns; it is control of the business based upon accounting and statistical records. With the increase in the size of business enterprises and with the development of the science of management, executives are coming more and more to utilize reports and statistical analyses for their guidance in making decisions and in establishing policies. Many of the facts upon which these reports and analyses are based are accumulated by the office, such as bookkeeping facts and data, cost and pay-roll data, and so on. Every executive should know the effective service rendered to management when these facts are properly compiled and presented, as explained in Executive Manual 59—to be taken up after handling Executive Problem 58, which follows.

CHECK-UP ON PRINCIPLES

Use the following check-up to get the principles of this manual firmly fixed in mind. This will help you to handle the problem which follows. This check-up is entirely for your own personal use, so you need not send it in to the University.

	Check	
	Yes	No
1. Should the requirements of executives as to stenographic service be acted upon without analysis?		
2. Should the advantages of centralization of transcribing, filing, or other office services, as represented by office executives, be accepted without investigation and analysis?		
3. There is little uniformity as to the length of letters or as to the general make-up of different classes of letters written by certain businesses. Does this make it impossible to apply uniform standards of measurement for use in compiling transcribing records and reports?		
4. Two competing businesses located in the same Eastern city receive inquiries at practically the same hour clipped by a Topeka, Kans., lady from advertisements in a monthly magazine. The house that is first to get its sales material in the Kansas lady's hands in reply to the inquiry obviously will score an advantage. Is this a situation where the efficiency of mail service will play an important part?		
5. With a large wholesale house, the incoming-mail sections are rushed Mondays and Tuesdays with the heavy mail that arrives over the week-end. Filing work is light these two days. Beginning Wednesday, work in the incoming-mail section is light, while the file section becomes rushed. It is suggested that these two sections be combined under one supervisor, so that the clerks can shift back and forth as the rush period varies. Does this plan appeal to you as a good one?		
6. Department managers of the Cleveland Pump Works frequently requisition mimeograph forms that duplicate or closely duplicate forms already in stock. One department manager makes no attempt to find what forms others are using. Is this a condition that could be remedied by a centralized control?		

	Check	
	Yes	No
7. The general manager of the World Envelope Company consults the office manager as to the desirability of securing higher salaried stenographers. He is discouraged with the possibilities of securing letters up to the standard he desires with girls of the grade they are employing. The office manager feels that this is unnecessary, and is confident that if provided proper supervision and working conditions, the stenographers will produce satisfactory letters. He is already working out a centralization of the force. Is centralization likely to help remedy such conditions?		
8. The correspondence supervisor of the Commonwealth Bayton Company requisitions two dozen Art Craft light shades for the transcribing department. They are a greenish shade with imitation hand-colored work, giving a Japanese effect. They cost 15 per cent more than ordinary shades. Thru the shades he expects to create a more pleasant working atmosphere. Would you approve the requisition?		
9. An investigation shows that 10 per cent of the letters received by the Gardner Company are incompletely answered. The general manager calls this to the attention of the office manager, and asks him if he can suggest a way of remedying the situation. Could you suggest a means of controlling action on the letters?		
10. The advertising manager of the Kartox Company makes up a sales booklet. When the first mailing reaches the mailing department, the mailing department manager informs the advertising manager that it must be classified as a "book," which means an extra outlay for postage running into hundreds of dollars, which could have been avoided by using covers a fraction of an ounce lighter. If the mailing department manager and advertising manager had been co-operating as they should, would this extra postage have been avoided?		
11. The three file clerks in a certain filing department file for all sections of the alphabet. Filing errors are rather frequent, and the supervisor finds it difficult to place responsibility. With the files divided in three sections alphabetically, and a section assigned to each girl, would responsibility be fixed more satisfactorily? Would the initialing of material filed by each file girl help the situation?		

Executive Problem 58

ORGANIZING THE STENOGRAPHIC FORCE
OF A DEPARTMENT STORE

Analyzing the Transcribing Requirements of
a Business

UNDER THE LASALLE PROBLEM METHOD



SHALL we centralize our transcribing force? This is a question that every business organization of 100 or more, sometimes of less than 100, can well afford to ask itself. The wisdom with which it is answered will depend upon the thoroness with which requirements are analyzed. This problem helps you to analyze a specific situation representative of those that often confront executives.



Prepared by the Research and Consultation Staff of LaSalle Extension University from an interesting problem which it has carefully investigated and analyzed.

Executive Problem 58

ORGANIZING THE STENOGRAPHIC FORCE OF A DEPARTMENT STORE

All the stenographic and typing work for a large Cleveland department store is done by thirty stenographers and six typists. These stenographers and typists who are scattered thruout the store, are under the charge of an assistant to the vice president and general manager.

This executive, F. L. Green, has held the position but a few months. Most of this time he has given to a study of organization and the establishment of effective means of control over the various activities under his supervision. With the stenographic and typing force, his first step was to draw up daily and weekly reports upon which each girl records her output daily and weekly. These reports revealed the need of improved working standards and of a more effective supervision of the work in general. Further investigation convinced Green that these activities should be centralized under a competent supervision. He has made a thoro analysis of the situation.

Analysis of Stenographic Requirements. The analysis shows that the stenographers serve four classes of dictators:

Executives.

Buyers and department managers.

Correspondents.

Miscellaneous dictators.

The service includes, in addition, straight copy work now being done by the six typists.

The executives are the administrative heads, such as general manager, comptroller, merchandise manager, and superintendent. Each has his secretary who takes his dictation, has charge of his personal files and records, answers the telephone, takes care of callers, and so on.

The buyers and department managers have their own stenographers. Clerical details are handled by their record clerks, office boys, and so on. The investigation shows that most of these stenographers are not kept busy with dictation and transcribing 100 per cent of the time. Altho they may help with clerical details, most of them report several hours of idle time weekly.

The correspondents are located in the mail order department. Their dictation is of two kinds: letters accompanying samples mailed to customers who have requested the samples, and adjustment and complaint correspondence. Sample clerks in the mail order department and complaint clerks in the complaint section furnish the correspondents with the information upon which their letters to customers are based. The stenographers to whom these correspondents dictate are located in the correspondence section.

Miscellaneous dictators include all employes other than those mentioned. Except for those mentioned, employes will have need to dictate only at irregular intervals.

Copy work includes copying (usually from longhand) memorandums, reports, notices, bulletins, etc., such as department heads, executives, and employes may need to have typewritten from time to time.

The Plan under Consideration. Green's plan provides that only the executives retain direct supervision of their secretaries, grouping all other stenographers and typists in one central department. The department will be managed by a supervisor who will exercise general supervision, and will take charge of all training. An assistant supervisor will have detail supervision of the operators, assign stenographers upon call, distribute copy to the typists, check the employes' daily reports, compile weekly and monthly summaries, and so on.

Green plans moving to this central department, two duplicating machines now located in the superintendent's office.

The buyers and department chiefs and the correspondents all protest against the centralized department.

The buyers state that they have the same need for personal secretaries as the executives. The stenographers of some of the buyers do act in a secretarial capacity in some respects, dealing with salesmen in matters of a routine nature and acting upon telegraphic advice from the buyers while they are on buying trips. This holds true with only two or three buyers, however. With the rest of the buyers and the department heads, there are no details that their clerks and office helpers cannot handle.

It appears that each correspondent has his own stenographer or stenographers who are accustomed to taking his dictation. The correspondents' contention is that with a centralized group serving them, they would not obtain this personal service.

The analysis shows that a stenographer takes about $1\frac{3}{4}$ times as long in transcribing from her notes as the correspondent takes in preparing for dictation and dictating. This makes it impossible to assign particular stenographers to each correspondent, so that all stenographers will be employed 100 per cent of the time. Furthermore, the amount of dictation given by the correspondents varies. At times several of the stenographers will have little to do. While it is true that stenographers now become accustomed to the individual needs of particular correspondents, Green asserts that the training given the employes in a centralized department will make for sufficiently superior work on the part of stenographers to offset the present advantage of personal service. He points out also that in case of a girl's absence under the present arrangement, it is difficult for a correspondent to arrange for emergency service.

The Executive Problem. You are asked to decide upon the feasibility of centralization under the conditions stated. The working papers will assist you in analyzing the situation. You will be asked also, in case you favor centralization in whole or in part, to state the points upon which you would base the case for centralization in proposing it to the vice president and general manager.

BUSINESS MANAGEMENT

HOW OFFICES CONTRIBUTE TO CONTROL—Being Executive Manual 59, on Office Organization and Management, in a Complete Plan of Training and Service for Executive Work

*Investigated, organized, and presented by
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HOW THE OFFICE CONTRIBUTES TO CONTROL

Part I

BOOKKEEPING AND EXECUTIVE CONTROL

IN S. H. Ditchett's history of Marshall Field & Company the following paragraph appears:

"In carrying on its merchandise transactions, ever increasing in amount and importance, Field, Leiter & Company found necessary the services of men capable of properly interpreting and utilizing reports, statistical and otherwise. Handling such reports, departmental figures, and other data obtained by the firm, was a young man named Thomas Templeton. He had what is known as 'a head for figures.' Indeed, Mr. Templeton has often been described by men who knew him well, as a 'master mathematician.'"

In later years Mr. Field is reported to have said:

"Most of the figures, reports, mathematical tables, etc., upon which we based Field policies, came about as a result of Mr. Templeton's clear analysis of existing conditions and his ability to reduce abstruse statistical reports to an understandable basis, and, conversely, because of his ability, to express the showings of our departments and the results of our internal policies in mathematical formulae."

The need for "reports, departmental figures, and other data," which Field, Leiter & Company found so useful years ago, is to-day recognized by business executives as a fundamental necessity in the management of nearly all business enterprises. Somewhere within every modern business organization it is well to have a "Thomas Templeton"—or a department if the business is large enough—who has the ability to gather the facts, classify and analyze them, and from this classification and analysis,

prepare reports, graphs, and charts which present lucidly and concisely the significant facts that guide management in its judgments and decisions.

The office plays a leading part in accumulating accounting and statistical facts and in so presenting them that they serve well as guides to effective control of the business.

Thru bookkeeping, thru the preparation of pay rolls, thru the gathering of cost data, and the like, the office accumulates a large share of the facts and figures which make up control data. The office, therefore, must employ men with minds suited to statistical compilations. Moreover, office employes must develop ability to analyze and interpret facts beyond that of employes in many other divisions of the business.

The problem of executive control and how to handle it under varying circumstances may be indicated by the following experiences in office organizations.

How the Office Contributes to Control. Thru a series of reports initiated by the office manager of one manufacturing concern, the president of this company is kept in touch with the status of selling and production operations.

The president of this company is primarily a production man. He is the inventor of the company's principal product, and he serves as production manager as well as president. The office manager keeps him informed as to plant capacity, stock in process of manufacture, completed stock on hand, and manufacturing turnover. By comparing these facts with records of actual orders, both orders that are fillable and orders that are not fillable from stock on hand, and with careful estimates of futures sales, this president is so well informed as to facts that he is able to maintain a balanced control of the business. Without these facts, he would be unable to maintain a balanced condition of production, sales, and finance.

A fundamental use of accounting and statistical facts is their service as guides to plans, policies, and executive decisions which maintain a co-ordinate and well-balanced operation of the major departments of a business.

The office may render accounting and statistical service to a single department as well as to general management. In one manufacturing company, the sales manager has a bent for statistics. He has an effective quota system which plays a large part in his control of salesmen. In developing this quota system he was aided by the office manager, who, like himself, is an able statistician. The statistical department, which keeps the sales records, including the individual sales quotas, is a part of the office organization.

Another case is that of a large telephone company which employs thousands of men. Thru accumulating, analyzing, and interpreting facts about its entire personnel, this company maintains effective control of wages and labor turnover. Altho the plan of control was worked out and is directed by the administrative staff, the actual operation of the plan is performed in the pay-roll department of the office.

Thus the office may in various ways facilitate executive control. It may initiate the gathering of facts upon which control rests, or it may supply facts specified by a general or departmental executive, or it may co-operate in devising a plan of statistical control.

Office, departmental, and general executives should all understand thoroly how accounting and statistical facts contribute to control.

The facts which the office accumulates may be divided into three classes: bookkeeping facts, pay-roll facts, and cost facts. Let us briefly consider the problems of accumulating, analyzing, and interpreting each of these classes of facts.

Bookkeeping Facts that Facilitate Control. Bookkeeping is the systematic recording of business transactions

that involve exchanges of things which have money value. The bookkeeper records the receipt of money, as when customers pay for goods; he records money disbursed, such as payments to suppliers of materials and supplies, and payments of wages to employes; he records money owing to the company, such as accounts receivable and notes receivable, and money owed by the company, such as accounts payable and notes payable; he also records the value of his company's assets—buildings, furniture, and other equipment—and changes in such values from time to time; the value of materials and supplies in storage, goods in process of manufacture, manufactured goods in stock, and so on.

The extent and diversity of bookkeeping records are indicated by the classification of ledger accounts set up in a large mercantile establishment, as follows:

I. REAL ACCOUNTS

CURRENT ASSETS

Cash
Merchandise
Accounts Receivable
Notes Receivable
Accrued Interest Receivable

FIXED ASSETS

Delivery Equipment
Furniture and Fixtures

DEFERRED CHARGES

Prepaid Rent
Prepaid Insurance
Stationery and Office Supplies

CURRENT LIABILITIES

Accounts Payable
Notes Payable
Accrued Wages Payable
Accrued Interest Payable

PROPRIETORSHIP

Capital
Surplus

II. NOMINAL ACCOUNTS

TRADING ACCOUNTS

Purchases
Sales

OPERATING EXPENSES

Selling Expense
Wages

ADMINISTRATIVE EXPENSE

Stationery and Office Supplies
Office Expense

GENERAL EXPENSE

Rent
Insurance

INCOME CHARGES AND CREDITS

Income Charges
Sales Discounts
Interest Expense
Income Credits
Income from Rent
Interest Earned
Purchase Discounts

Bookkeeping that meets the varied needs of a modern business requires the maintenance of a set of books, including books of original entry, such as journals and cashbooks in which transactions are recorded chronologically as they happen, and ledgers of various sorts in which transactions are grouped by accounts, as above indicated.

We are not here concerned with the fundamental theory of accounting, nor with the accounting records that are necessary to record, gather, classify, and report various activities. This will come later in the major section of this training service on accounting and statistical control. But our problem here is the part played by office management in making accounting facts available to executives for their use in managing the business. This may require attention to the correct and prompt recording of the facts in order to make them available to executives in time to be of real service in managing the business.

The importance of accuracy in bookkeeping is apparent. Its importance supersedes dispatch or rapidity. But, of course, both inaccuracy and slowness in keeping the books are serious handicaps in supplying the financial facts that may so greatly aid management in the control of the business.

Efficient bookkeeping is a fundamental requirement in supplying the facts necessary for effective executive control of a business.

Modern methods of business management call for a well-trained supervisor of bookkeeping. He must understand the value of the financial facts that are used in executive control, and be able to present those facts in usable form, involving many comparisons of various sets of facts, as explained fully in a later section on accounting and statistical control. He must also understand the value of modern machines used in keeping books as means of securing accuracy, dispatch, and low-cost operations.

It is well for the office manager, as well as the head bookkeeper, to keep in touch with modern improvements in methods and means of keeping books, as fully explained in the sales literature of companies that sell bookkeeping supplies and machines. The office manager in particular is interested in having more facts available for practical use in controlling activities in the business as a whole.

The value of bookkeeping machines in effecting dispatch is as important as their value in securing accuracy. By using these machines, continuous balances are computed on the ledger accounts as the items are recorded. Bills and statements can be made out simultaneously with the recording of the items. Since the sales-ledger accounts are balanced daily, statements can be made out up to the final items; so that on the last day of the month, these final items can be added, the footings automatically obtained shown, and the statements mailed promptly.

Evolutionary Improvement in Bookkeeping Methods. The evolution of bookkeeping from the old-style bound ledgers, enormous and unwieldy, to the handy loose-leaf ledgers of the present day, is a story of continuous and progressive simplification of the work and the gradual elimination of waste motion. This evolutionary process is continuing to-day at a rapid rate.

The present bookkeeping tendency is increasingly toward the use of loose-leaf ledger sheets or cards and the elimination of ledgers wherever possible.

This movement toward simplification was illustrated in the voucher process described in Executive Manual 57. In businesses of many different types, it has been found practicable to eliminate the accounts-payable ledger by using a modern voucher system. A few business concerns are now testing out a method of eliminating the customers' ledger in cases of customers whose accounts are paid promptly and in full, requiring few entries to the accounts. Here copies of the bills or statements sent

to the customer serve as records of the accounts. But this method of simplification has yet to prove its practical value.

The greatest progress in bookkeeping methods has been in the use of bookkeeping machines. These machines afford many advantages. They provide a continuous proof of accuracy, and supply running balances of all ledger accounts, and a simultaneous writing of ledger entries and statements, as previously stated. The larger the amount of bookkeeping to be done, the more practical is the use of bookkeeping machines.

In the analysis of sales, in the distribution of voucher payments, in the compilation of pay-roll summaries, and the like, tabulating machines are proving to be of great value. Furthermore, special machines have recently been invented which analyze sales and accounts. They contribute materially to the speed and ease with which such work can be done.

The usefulness of machines to handle routine office work of many kinds widens so rapidly with the development of new devices and improvements, that it pays to have someone responsible for keeping constantly posted on new mechanical devices for cutting the cost of office services.

Training Routine Workers to Aid in Control. Every routine office worker should understand the connection between his work and effective control of the business.

The importance of getting statements out promptly has been emphasized in a previous executive manual. The company that places its statements promptly in the hands of its customers on the first of the month, usually is given prompt consideration when its customers make their remittances. Every possible device should be made use of for keeping the statements prepared currently, so that but a few final entries need to be made at the close of the month.

Bookkeepers should realize their value to both the

sales and credit departments. The sales department should be informed regularly of accounts that show inactivity. By watching accounts, a bookkeeper will quickly develop a true credit sense. An alert bookkeeper will very often graduate from his ledgers directly into the credit department.

The daily cash report at the close of each day, or at the beginning of the day following, is essential to the treasurer's control of his company's funds in the bank. The bookkeeper's report of cash deposits and withdrawals, and balances in the bank at the close of business, is helpful to the treasurer in providing for payments to be made. Bookkeepers should recognize this, and they should likewise know why the treasurer wants to be kept informed concerning all current accounts and notes payable and receivable, and so on.

An office manager can never afford to lose sight of the fact that—

A prime responsibility of an executive (anywhere in the business) is to make sure that his subordinates visualize the purpose and importance of the work they do.

This is particularly true of the executive who supervises the work of the bookkeepers. Let us look more closely into the important matter of how bookkeeping facts can aid in executive control. This will require us to have a more fundamental understanding of modern bookkeeping methods in relation to executive control.

How Bookkeeping Contributes to Executive Control. Modern bookkeeping, in its development of accounts, and by their division and subdivision, tends to analyze and classify financial facts in a manner that makes them immediately available for presentation and interpretation as aids in executive control of a business.

The fundamental classification of accounts is twofold:

1. Real accounts, such as assets, liabilities, and capital
2. Nominal accounts, which consist of:

- (a) Trading accounts, such as Purchases, Sales, Purchase Returns, and so on.
- (b) Expense and production accounts, such as Supplies, Labor, Repairs, and so on.

The real accounts (assets, liabilities, and capital) are summarized in the balance sheet to show the financial status of the business as a whole. The nominal accounts are used in the profit and loss statement in determining the profit or loss for a given period.

Later on in this training service the preparation of a balance sheet and a profit and loss statement will be considered. Here attention is called to the broad classification of accounts and to their summarization in these two major control reports (the balance sheet and the profit and loss statement) so that we may better understand the contribution of bookkeeping to control. The important fact is that—

Even the most elemental of bookkeeping activities contribute ultimately to executive control thru the balance sheet and profit and loss statement.

Analysis of Sales for Control Purposes. We can see that billing affords the office an opportunity to aid in sales and administrative control. The distribution of sales by merchandise classification has been considered; also the use of accounts classifications. A further possible contribution of the office to control lies in analyses of sales for the purpose of sales control.

Sales managers wish to have such facts as the following:

The quantity and value of each salesman's sales.

The quantity and value of each customer's purchases.

Sales by merchandise classes.

Profit on sales per customer, per salesman, per merchandise class, etc.

In many companies, the physical labor of making such tabulated classifications of sales by hand would be enormous. But two types of machines have been devised by which these classifications can be obtained

at low cost and with accuracy. These devices are the tabulating machines and the distributing machines, which automatically sort cards and distribute figures according to various classifications.

The tabulating machines are equipped with from 4 to 7 counters, making it possible to obtain from 4 to 7 totals simultaneously. By an ingenious mechanism, the totals can be accumulated in various ways to suit the desires of the tabulator. A tabulating machine can be set to accumulate totals of units sold, selling price, cost, and so on; or it can be set to show simply the selling price, cost, and total sales; or it will give the totals by salesmen in each case. The latest type of tabulating machine prints quantities and amounts; its operation is wholly mechanical, and it does the manual and mental work of a score or more of clerks.

Other Uses of Tabulating Machines. It is difficult to appreciate fully the great contribution to statistical control that has been realized thru the development of such machines. They are useful in compiling and analyzing labor and pay-roll statistics, as well as sales statistics; they are effective for statistical work required in inventory control, control of raw material and stores and stocks of finished material; and they are an economical method of collecting and assembling labor-cost figures by classes of labor, job, machine number, and so on. Their use in regular accounting processes is also being developed. In fact, it may now be said that—

The development of mechanical methods of tabulation constitutes a most significant step in the establishment of comprehensive statistical control.

The Office Executive's Opportunity. Even our brief consideration of a few of the ways in which the office can supply facts that are vital in securing and maintaining effective control of a business has been sufficient to establish the fact that—

Executives everywhere in a business can look to the office as a source of statistical facts so compiled and presented that they may be used as the basis for establishing correct policies and making sound decisions.

Opportunities for presenting essential facts in a manner that will aid the sales, purchasing, financial, and the general administrative executives in their direction and control of activities thruout the business are presented in large numbers to every office manager. The efficient office executive of to-day recognizes the fact that in analyzing and interpreting facts that aid in the problem of control, he is performing perhaps the most constructive service that is within his power. He will initiate work of this kind where he finds opportunity to be of definite help to other executives in the business, and he will encourage administrative officers and departmental executives to seek his co-operation in finding, tabulating, analyzing, and presenting the facts they need as guides to more effective control of their respective departments.

* * * * *

So important is this function of the office as a contributor to effective control, that we shall go on, in Part II, to consider in some detail the part played by the office in supplying, specifically, pay-roll and cost data in relation to executive control.

BOOKKEEPING AND EXECUTIVE CONTROL

Part II

PAY-ROLL COSTS AND EXECUTIVE CONTROL

A VERY important office function is that of providing efficient pay-roll service. The principal objectives of this service are as follows:

- To insure that employes are paid on time and in correct amounts.
- To safeguard the company against fraud and collusion.
- To classify the pay roll by departments and kind of work, for correct distribution on the cost records.
- To provide the basis for absorbing the entire pay roll in the cost of the service or product.

In attaining those objectives the office manager realizes that pay-roll service is a problem in human relations as well as in the accurate recording of labor hours, wage rates, etc. He knows, in fact, that the efficiency of pay-roll routine can be largely measured in terms of employe good will.

Prompt and cheerful and accurate paying is an important means of securing loyal work on the part of employes.

The pay check, or the contents of the pay envelope, is the fulfillment of the employer's obligation to the employe in exchange for service he has rendered to the business. He has earned his pay, and it should be delivered to him cheerfully and promptly on pay day. Great care should be taken to pay exactly the correct amount.

Management's attitude and aim in paying is that of serving the employe's interest. He should ordinarily be paid during working hours in his department, and not be required to use part of his lunch-hour time or to stay late to secure his pay, nor to leave his bench or his desk for a trip to the office to get his pay.

In handling groups of employes, management finds it profitable to have time clocks or other "in" and "out"

recorders conveniently placed and under shelter so that employes are protected and warm if they have to stand in line. The formation of long lines of incoming or outgoing employes should be avoided by providing a sufficient number of time recorders placed far enough apart to prevent crowding.

Safeguarding the Company's Interest. Fairness to the company as well as to the employes is an important policy that underlies the establishment of efficient payroll methods.

Management must not permit itself to be imposed upon, for this has a demoralizing effect upon its employes.

A Christmas bonus was being distributed by a prosperous manufacturing company. The superintendent chose to distribute the bonus in person to the factory workers. In one department he had three bonus checks too many to go around. Upon investigation, he found that the envelopes were for dummies created by the foreman of the department, and that these dummies had been on the pay roll for more than a year. The foreman had been pocketing the money.

Aside from such cases of actual dishonesty, which, fortunately, are infrequent, human fallibility must be guarded against in all directions. The same precision cannot be expected, for example, where men write down their starting and stopping time on the job time tickets as where the times are punched on a mechanical time recorder.

In an office or shop where employes are paid by the day or week rather than by the hour, an accurate check should be kept upon their time. Where there is laxity in timekeeping, and employes fail to acquire the habit of punctuality, the accumulative loss thru tardiness will quickly mount up to very large proportions. This, too, is unfair to employes who are punctual; it causes a let-down in morale.

Every company should provide impartial and effectual means of controlling employees' attendance and performance.

Planning and directing an efficient control of time and job records are essentially a responsibility of office management. These records when properly provided are the basis of efficient good-will-building pay-roll methods.

Recording Employees' Time. In relatively small businesses, department chiefs and foremen may satisfactorily maintain the records of employees' time. It may be unnecessary to use time recorders, which are usually unpopular with employees. But in large businesses or wherever an exact record of time is necessary, as when employees are paid by the hour, mechanical time recorders are found necessary.

One type of time recorder is the dial. A long-armed punch is rotated around the rim of a large dial until it reaches the employee's pay-roll number, where he punches his time "in" and "out" on a broad tape inside the cabinet upon which the dial is mounted. On this tape is recorded the employee's attendance record for an entire week.

Another mechanical method of recording time is by using cards which contain spaces for an employee's record for an entire week. These cards are filed in a visible card rack. When an employee comes in or goes out, he removes his card from one rack, inserts it in a slot at the base of the clock, pushes down a lever, thus printing the "out" or "in" time on the card. He then replaces the card at its proper place in another rack as he passes on to or from work.

A clerk can compute the pay roll more conveniently from the cards than from the broad tape of the dial recorders. Moreover, employees who are out or absent at any time can be ascertained by inspecting the cards in the "out" rack; while departmental executives can check the cards for absences and irregularities more conven-

iently than they can check the tapes in the dial system of recording time.

But employes are more likely to favor the dial type of time recorder, since the single motion of punching thru the assigned slot takes less time than removing a card from a rack, inserting it in the slot, punching it, and then inserting it in a second rack, as required in the card time-clock method.

In deciding what type of time recorder to use, the convenience to employes must be weighed against the amount of clerical work involved.

Against the greater amount of clerical work required by the dial time recorder stands the somewhat greater amount of time required by each employe in using the card system; and the fact that employes generally prefer the dial system weighs in its favor, for it usually pays to provide for the convenience of employes in such matters.

Keeping the Pay-Roll Record. After computation of the employes' earnings has been made, the amounts are entered on a pay-roll record.

The old-style pay-roll book provides space for the name, clock number, job, and the amount received. This is a common way of keeping the record of money paid to employes, and it is favored by many companies, because it affords a better basis for a check-up by auditors than does a card system.

Some firms, however, maintain a pay-record card for each employe, such as that shown in Figure 1, with spaces for weekly posting of the date, the hours worked, and the amount received. The cards are arranged in order of the clock numbers, which numbers appear in the upper right-hand corner.

On the back of this card may be recorded the employe's residence, service with the company, age, and his efficiency record, so that wage statistics can be collected quickly.

NAME _____						CLOCK NO. _____											
YEAR _____						Started _____ Left _____											
Week Ending	Hrs.		Am't		Bon- us		Total		Week Ending	Hrs.		Am't		Bon- us		Total	

Figure 1. Pay Record Card. On this card is maintained a record of hours worked, regular wages paid, and bonus payments by weekly totals. On the back of this card such personal data as age, length of service, quality of service, and so on may be recorded.

Another method of keeping the pay-roll record is to use ledger sheets for a twelve-week period and to enter on one sheet the names of all employes paid off at one time, their clock numbers, jobs, hours worked, and any deductions of time. Space is also provided for remarks.

Income tax reports have added a burden to pay-roll keeping. These reports must show the annual earnings of each employe. A well-kept pay roll, therefore, provides for periodic extensions, so that the total annual income of each employe can be quickly computed.

Wage statistics of various kinds are usually computed from pay-roll records. They must be accurate and complete in order that wage studies may yield reliable conclusions.

Pay-Roll Lists. Lists of employes by departments, with rates and total amounts paid, are needed for cost-accounting purposes. Addressing machines can expedite the preparation of departmental pay-roll lists. A plate or stencil is made for each employe. These plates are

filed in the order in which the employes are paid. The use of the addressing machine for this purpose not only saves time in making out the lists but also makes for greater accuracy, because a single plate, known to be accurate, is used time after time.

In the case of salaried employes or of any employe who receives a fixed sum each pay day, the addressing-machine plate can carry the wage as well as employe's name and number.

Where computation of totals is desired, the adding machine can be used. Special typewriting machines now make possible, by a single operation, the typing of the lists, computing the total, and preparation of the pay-roll check and envelope as well. The pay-roll lists can be made to serve as vouchers by including a column for the check number, and entering the numbers as payments are made.

In pay-roll work, as in practically every phase of office work, mechanical devices are coming to be used, because they contribute to both accuracy and dispatch.

Handling Factory Pay Rolls. In factories a special time record for distributing time to the individual jobs is usually necessary, such as the daywork time ticket shown in Figure 2.

When a separate card or ticket is used for each operation, the cards can then be assembled by job number—which is a considerable advantage in assembling costs. In some cases the daily card provides spaces for recording various operations performed thruout the day. But it is often advisable to make out a new ticket for each separate job in order to facilitate the summarizing of costs or the posting of individual items to the cost summary.

A piecework card will not vary much in design from the daywork time card. The essential information on

both is about the same. The piecework card should show the piece number, the specification number, description of operation, and piecework rate. Piecework cards should be of a different color to differentiate them from day-work cards.

Dept. No. 893	Man No. 1008	Name Hess	Date Apr. 18.
Machine No. LI-2	Account No. 811	Piece No. 500	Operation No. T02620
Name of Article:	Bushing	Stopped	9:15
Operation Name:	Bore	Started	7:30
Description:	Elapsed Time 1:45		
Bore $\frac{1}{2}$ " x $2\frac{1}{2}$ " hole using Std. $\frac{1}{2}$ " Reamer			
Quantity 500	Rate \$0.32 cwt.	Cost \$1.60	Bonus
Defective 10	Good 490	B.S. Approved	

Figure 2. Day Work Time Ticket. Upon tickets like this the time spent on an individual job is recorded. These time tickets are checked with the attendance cards to insure that an employee's time is fully accounted for.

Often time clerks are stationed thruout the factory for the purpose of recording the workman's time on jobs. This saves the workman's time and makes for greater accuracy; and it tends to keep his mind off the time of day.

Factory pay rolls are made up from these job time cards. The "in" and "out" cards are used as a check on the job time cards. This check may be made by the time clerks in the shop or by the clerks within the pay-roll department. As a precautionary measure, it is advisable to maintain the original file of day and piece rates in the pay-roll department, with a duplicate set of the rate cards for each department to be kept in that department.

Mechanical Aids in Handling Factory Pay Rolls. Visible index files are a great convenience in making up factory pay rolls. These files show the employe's clock number, department, name, and rate. For piecework, the description of the job, the operation or piece number, the rate, and the quantity per unit of time are also shown. The working time elapsed, or the total pieces produced if piecework, is already computed on the job tickets, so that the pay-roll clerk only needs to enter the rate and make the extension.

Adding machines may be used in computing these pay rolls. As the individual totals are entered on the pay-roll lists, the grand total will accumulate automatically. By totaling the entries to the list separately and checking this total with the original grand total, a check upon the accuracy of the entries may be obtained.

Tabulating machines may also be used in obtaining weekly and individual totals. As the wage is extended on each job time card, the card is punched to indicate the amount. Then at the end of the week the cards are mechanically sorted and totaled. As the total for each employe is secured, it is entered in the employe's earning record. As proof, a grand total can be taken and checked against the total of the entries in employes' earning records.

The Method of Paying Off. When the pay envelopes are addressed by the addressing machines, the name plates will be arranged in the order in which the employes will receive their pay.

If pay receipts are used, they may be distributed in advance, so that employes can sign them and have them ready for the paymaster when he delivers the pay envelopes. This will not only prevent loss of time in paying off but it will also give the employes an opportunity to check the amount of wages to be received before the paymaster arrives.

Cash requirements in meeting the pay roll can be calculated mechanically by denominating machines which calculate the number of bills or silver pieces of each denomination that will be needed. Currency from the bank can then be obtained in the denominations required.

Money-changing machines can be used to advantage in filling the pay envelopes. Some of these machines feed out the money in the exact amount desired, print a slip for each payment, and accumulate the totals by departments, and the grand total as well.

Payment in Cash or by Check? From the company's viewpoint, paying by check is better than paying in cash. Paying by check reduces clerical expense and eliminates risk of loss from theft or hold-up.

The employees' aversion to payment by check is reasonable in many cases. Factory employees in particular prefer payment by cash. They are unused to checks, and are, as a rule, unable to appreciate the advantage to them in having a check to deposit in a bank; they seldom have a checking account at a bank. But their dislike of receiving payment by check can sometimes be removed by providing facilities for cashing the checks.

It is often possible to make arrangements with a bank to have a bank teller at the company's office on pay day. The bank teller cashes the employees' checks, and, as a reciprocal favor, is permitted to solicit employees' accounts and receive savings deposits.

Some companies issue non-negotiable checks of their own. These may be like ordinary bank checks, each one an order on the company for one man's wages. Sometimes printed orders for the company to pay on demand in \$20, \$10, and \$5 denominations are used in place of money. One firm that uses this latter method finds that while it involves more work, there are several distinct advantages: The employees like it; they use the checks as actual money in the community in which they live;

and the company is therefore able to maintain a larger bank balance.

Payment by checks is widely considered the best way of paying off from the standpoint both of the employee and of the business itself. It encourages employees to open savings and checking accounts at the bank and to establish more businesslike management of their own personal affairs.

Adjustments of Pay-Roll Mistakes. Under any system of paying, mistakes will now and then occur; and sometimes apart from mistakes, an employee will feel that an injustice has been done to him. Adjustments of such cases require tactful handling.

Wherever questions as to the correctness of pay occur, pay-roll employees should manifest appreciation of and a sympathetic regard for the employee's viewpoint and interest.

Patient explanation of employees' mistakes and a straightforward and friendly attitude in talking with the employees will always prove profitable to the company. In large organizations that maintain an employees' service department, such cases will be referred to a service executive who specializes in handling them.

Meeting Special Situations. The routine of paying should be sufficiently flexible to provide for making prompt adjustments when an employee is transferred from one department to another, when he is absent on pay day, or when he leaves.

Hard and fast routine should not be allowed to nullify the fundamental principle of providing satisfactory service to employees.

Routine must provide for all out-of-the-ordinary situations. In the case of transfer, the name should be promptly canceled from the old department pay roll and added to the new; a new employee number should be assigned and new clock cards and employment cards issued. The simplest method of handling the case of

an employe absent on pay day is to have the department chief make out a request upon the pay-roll department or cashier for back pay. If the routine can be arranged so that paymasters can make special trips to cover these cases, so much the better.

When employes leave, an authorization of payment is issued by the department chief, and the employe is sent to the pay-roll department. Wherever the employe has proper authorization, final pay should be made without delay.

The Principal Routine Pay-Roll Activities Are:

1. Placing employes on pay roll.
2. Recording employes' time. (Use of time clocks.)
3. Keeping the pay-roll record.
4. Paying off.
5. Making adjustments.
6. Meeting special situations. (Transfers, employes quitting, etc.)

Pay-Roll Records and Labor Costs. Pay-roll records, like bookkeeping, contribute definitely to administrative control. The pay-roll figures may be summarized and distributed by departments and by the various labor classifications, such as direct labor, indirect labor, idle time, and so on.

Distribution of the pay roll may be made from the job time cards. Summarization of the pay-roll figures may be made on a pay-roll summary sheet, as shown in Figure 3. From such summaries are obtained general figures on labor costs for production reports and analyses such as those described in Executive Manual 38.

PAY-ROLL SUMMARY												Half Month Ending March 31, 1921	
Dept.	Direct		Indirect		Repairs		Construc- tion		Lost Time		Total		
	Hrs.	Amt.	Hrs.	Amt.	Hrs.	Amt.	Hrs.	Amt.	Hrs.	Amt.	Hrs.	Amt.	
1	308	\$247 60	209	\$192 80	80	\$ 72 00	128	\$123 60	5	\$360	728	\$ 639 60	
2	400	360 00	100	95 00	10	8 00	20	19 00	1	90	531	482 90	
3	650	590 00	150	140 00	25	20 00	10	9 00	2	200	837	761 00	
4	900	800 00	200	180 00	15	13 00	...		...		1115	993 00	
Total	2258	\$1997 60	659	\$607 80	130	\$113 00	156	\$151 60	8	\$650	3211	\$2876 50	
Checked: <i>M.C.</i> Cost Department							Approved: <i>C.L.P.</i> Pay Roll Dept.						

Figure 3. Pay-Roll Summary. On this form the factory pay rolls are distributed by departments and by labor classifications. Such a distribution of time is a basic factor in the preparation of reports and analyses for production control.

These summary totals are checked departmentally against the pay-roll figure for hourly rated employees. Attendance cards or dial time-clock tapes are filed in containers for reference in case of complaints or mistakes.

The job time cards are now sent to the cost department, where they serve as the basis of the distribution of direct-labor costs.

The Three Main Objectives of Pay-Roll Routine. In organizing pay-roll routines, let us remember that there are three basic objectives to be attained and maintained, as follows:

1. Service to employees. Accurate, prompt, and convenient paying, which contributes much to employee satisfaction and contentment.
2. Accurate records of employees' attendance. These are necessary in order to have complete control of the productive time put in by all employees.
3. Analyses and summaries of the time spent by employees. These form part of the general basis of production-control reports.

The details of cost control were covered in Executive Manual 38. Therefore, in so far as production costs are concerned, it is sufficient here to remember that in any business, the office plays an important part in the collection, interpretation, and presentation of cost-accounting facts. But we should here cover the fact that a comprehensive cost and statistical control should also be established in merchandising as well as in manufacturing lines of business, including analyses of purchasing and sales records, of personnel statistics, and so on.

CONTROL THRU MERCHANDISE STATISTICS

The office of a retail store may contribute to managerial control along two distinct lines:

1. Thru accounting and bookkeeping.
2. Thru the accumulation, analysis, and interpretation of purchase, stock, and sales statistics.

The accounting and bookkeeping activities will result in the monthly balance sheets and operating statements, which serve the purpose of general financial control, as fully explained later in the major section on accounting and statistical control. The merchandise statistics require more than passing mention.

At the beginning, we should realize that—

Fundamental to statistical control are analyses of costs, expenses, and profits, by departments and classes of merchandise.

The Controller's Congress of the National Retail Dry Goods Association has classified merchandise into eight basic departments, as follows:

Dry goods.	Women's ready-to-wear
Small wares.	accessories.
Men's and boys' wear.	Shoes.
Women's and misses' ready	Home furnishings.
to wear.	Miscellaneous.

Each of these eight main groups is divided into sub-groups, their number in each case depending upon the size of the store and the extent to which it is found prac-

licable for the merchandise groups to be analyzed for separate study.

With the merchandise classified in this way, facts as to the performance of each class of merchandise may be collected, as follows:

Purchases.	Stock at end of period.
Sales.	Inventory shortages.
Turnover.	Gross profit.
Returned goods.	Expense.
Cash discount earned.	Net profit.
Stock at beginning of period.	

Thru reports that reveal the above facts, prepared in the office, management can keep in touch with the relative profits derived from various lines of merchandise. The slow-pay lines, the overstocked lines, the understocked lines, and so on, are known, and steps can be taken, in the light of facts, toward increasing the profit earned in handling each line. This kind of scientific merchandise control typifies modern retail-store management.

The Facts for Sales Control. Let us briefly consider, in a fundamental way, the problem of sales control.

In the matter of sales costs, the business world stands to-day about where it stood a decade or so ago in its knowledge of overhead costs. It was not so many years ago that progressive business men began to realize that overhead would not be properly accounted for unless it was correctly apportioned among the different items produced or lines of items sold. To-day many business concerns also correctly apportion selling expenses, including the right apportionment of overhead selling expenses, by lines and items, as previously explained in Executive Manual 24. It is now realized that—

Selling expenses should be thoroly analyzed and apportioned as accurately as may be possible to the products and units to which they apply.

An old-time fallacy in figuring selling expense was to

consider a fixed percentage of the selling price—this percentage arrived at by dividing the total selling expenses for the year by total sales for the year—as selling expense on individual lines and items. If this general average was, say, 10 per cent of the selling price, then it would be assumed that the selling expense on the sale of a \$1 item was 10 cents, and that the selling expense on the sale of a \$50 item was \$5. Thus the same percentage was applied to every order regardless of its amount.

Obviously, that method of apportioning selling costs on different items and on orders of different sizes did not even approximate accuracy, for it may often cost as much or more to sell \$5 worth of merchandise as to sell \$50 or even \$500 worth. In order to be of practical service in the control of selling costs, the expense of selling single lines and items and orders of varying amounts must be individually determined.

The first step is classification to determine the units of sale on which selling costs are to be figured. The second major step is comparison of selling costs as between different units, different territories, different salesmen, and the like, in order to find out where selling costs are relatively high or low.

Knowledge of the fact that selling costs are here or there too high or too low is the basis of efficient control of the cost of selling.

It is an important responsibility of office management to classify and analyze and interpret selling costs by items, lines, departments, sales territories, salesmen, and so on, in order to facilitate the sales manager's control of selling costs. An example of a modern report of sales, selling costs, and profits, classified by salesmen, is shown in Figure 4.

Essentially this same responsibility attaches to the statistical division in the office of a retail store, where sales records by lines and items may be summarized and analyzed with a view toward better sales control, which

The Leader Manufacturing Company
ANALYSIS OF SALES, EXPENSES, AND PROFITS
By Salesmen

Month of April, 1925

Salesman	Gross Sales	Returns and Allowances	Net Sales	Cost of Goods	Gross Profits	Per cent to Net Sales	Salesmen's Expense	Per cent to Net Sales	Profit	Per cent to Net Sales
Seewall, A.	\$21,416.83	\$ 5,716.80	\$15,700.13	\$11,272.60	\$ 4,427.43	28.2	\$ 1,789.83	11.4	\$ 2,637.60	16.8
Heywood, H. M.	17,497.30	3,873.20	13,624.10	9,577.74	4,046.36	29.7	1,171.70	8.6	2,874.66	21.1
Bristol, E.	15,753.81	1,160.21	14,593.60	9,135.56	5,458.04	37.4	1,984.75	13.6	3,473.29	23.8
Hilton, W. J.	12,227.83	2,116.08	10,111.75	6,613.15	3,498.60	34.6	879.72	8.7	2,618.88	25.9
Lawrence, T.	10,110.70	310.40	9,800.30	6,713.17	3,087.13	31.5	774.21	7.9	2,312.92	23.6
Stewart, A.	9,572.81	1,987.49	7,585.32	4,839.41	2,745.91	36.2	963.37	12.7	1,782.54	23.5
Rice, W. R.	8,242.18	3,416.20	4,825.98	3,373.34	1,452.64	30.1	690.08	14.3	762.56	15.8
Drummond, A.	7,731.50	140.10	7,591.40	4,919.39	2,672.01	35.2	1,169.14	15.4	1,502.87	19.8
Combs, A. B.	7,270.21	373.20	6,897.01	4,655.43	2,241.58	32.5	737.98	10.7	1,503.60	21.8
Richmond, S.	6,413.71	715.20	5,698.51	4,034.80	1,663.71	29.2	695.62	12.2	968.09	17.0
Brennan, H. A.	5,837.02	336.08	5,500.94	3,487.07	2,013.87	36.6	720.13	13.1	1,293.74	23.5
Reynolds, H.	5,102.60	284.26	4,818.34	3,309.65	1,508.69	31.3	506.21	10.5	1,002.48	20.8
Total.	\$127,176.50	\$20,429.22	\$106,747.28	\$71,931.31	\$34,815.97	32.6	\$12,082.74	11.3	\$22,733.23	21.3
Previous Month.	\$129,180.00	\$19,768.20	\$109,411.80	\$73,524.73	\$35,887.07	32.8	\$12,254.12	11.2	\$23,632.95	21.6
Up to date this year.	509,810.00	81,408.48	428,401.52	289,171.03	139,230.49	32.5	48,409.37	11.3	90,821.12	21.2
Same period last year.	490,750.25	73,585.10	417,165.15	284,089.47	133,075.68	31.9	49,225.48	11.8	83,850.20	20.1

Figure 4. Monthly Sales Report. This report shows a summary of each salesman irrespective of class of product. Comparison is made with the previous month's totals; also there is a comparison of the year's record to date with the same period of the previous year.

implies better control of purchases and of stock. The ultimate objective of cost determination by lines or items is to find out what is the actual net profit, or loss, in handling each line or item. Then, of course, control of purchases and sales may be intelligently applied with a view toward cutting down losses and building up net profits.

The details of how statistical information can serve to make possible effective control of a business will be covered fully in the major section of this training service on accounting and statistical control. Here the main point is that the office can serve the business most constructively by providing sales executives with the facts that make possible intelligent control of sales and of selling expenses.

The Facts for Control of Personnel. The value of the compilation and analysis of statistics relating to personnel is widely recognized. Just how valuable such statistics can be is suggested by the experience of a large telephone company.

This company's source of facts is the pay-roll forms and records. The facts include period of service, occupation, salary rate, etc. From these cards, two sets of reports are compiled, one set on wage statistics and the other on labor turnover.

The wage statistics report gives, by sex, the following information:

Number of employees.

Present year.

Preceding year.

Per cent change.

Average rate of pay per employee on a weekly basis.

Present year.

Preceding year.

Per cent change.

Average period of service by years and months.

Present year.

Preceding year.

The labor turnover report includes:

Resignations.

Domestic reasons.

Wages.

Working conditions.

Miscellaneous reasons.

Reasons not obtainable.

Total.

Per cent to average force.

Dismissals.

Attendance.

Quantity and quality of work.

Other dismissals.

Total.

Per cent to average force.

Other losses.

Medical rejections, etc.

Laid off.

Summary.

Total losses.

Per cent to average force.

The above facts properly compiled aid greatly in the problem of cutting down labor turnover; therefore in holding labor costs down to a minimum. They enable personnel executives to work intelligently on their problem, with complete and accurate information concerning both what the present conditions are and what the past conditions were and the causes of changes in present conditions as compared with past conditions. In gathering these facts, the office can obviously supply a very essential aid to better control of the personnel of a business.

Facts that Aid in the Control of Purchases. An excellent example of a thoro statistical control of purchasing is the experience of the Cleveland Twist Drill Company. This company gains effective control of purchasing thru analyses of sales, stores inventory, and production.

First, the number of tools of each kind that must be manufactured within a given period is figured. This is done by compiling sales figures and comparing, weekly or biweekly, the sales of each of the previous three

months with the sales of the current month. This comparison gives the basis for estimating the sales for the coming period of three months.

All other transactions that affect the number of tools in stock or in process are likewise recorded. These transactions include orders issued for production, deliveries to the stock room, withdrawals from stock, tools in process, etc. This information is classified as to the kinds of transactions, the list numbers, and the sizes of tools; and the tabulations are then made. The totals are listed on statistical record cards, one card for each size and list number of tool. These cards show the condition of stock, products in process, and sales movements. They comprise not only continuous inventories but a history of sales and production as well.

With the definite story of inventory and sales and production trends before it, the purchasing department is in position to estimate intelligently the demands for supplies and materials for a period ahead. It can chart approximate figures of purchase demands for three months, six months, or even a year, and thus can plan ahead its purchases. Intelligent apportionment of the financial strain imposed by its purchases can be made over a period, and markets can be studied in advance in order to take advantage of favorable price trends.

Thus statistical facts properly compiled may be used as the basis of the control of purchases as well as sales.

All the necessary statistical facts, concerning orders, raw-material receipts, goods in process, deliveries to stock, etc., can in many cases be gathered by the office itself; and the office can analyze and compile, from these records, summary reports that will give the facts pertinent to purchasing control. Here, as in every phase of statistical control, the amount of service that the office can give will depend chiefly upon the initiative and the resourcefulness of the office manager himself.

Principles of Fact Presentation. Altho we shall again consider the presentation and use of statistical facts in a later section of this training service, we shall here consider a few basic principles relating to this problem, which define the limits of efforts within the office to aid in executive control thru supplying statistical facts to other parts of a business.

One important consideration is that—

No facts should be recorded and no reports constructed unless there is certainty that the facts contained in them can be put to some worth-while use.

A fundamental weakness of statistical service often lies in the compilation of great masses of statistics with an entire disregard as to whether or not they have the elements of timeliness and utility.

There are two ways in particular of keeping statistical service within the limits defined by the above-stated principle. First, careful thought should be given to every newly proposed statistical compilation, and agreement as to the usefulness of the expected results should be obtained from the executives for whom the statistical work is to be done.

Then even after it has been determined that a body of statistical data should be compiled and reports issued, a constant check should be kept upon the use to which the reports are being put, to make sure that their usefulness is continuing. There are many instances where once-important reports have been continued long after the termination of their period of usefulness. In one large organization, for example, it was found that a report which entailed 300 working hours a month to compile at a cost of 70 cents an hour—a total direct-labor cost of \$210 a month—was not being put to practical use by a single person in the entire organization.

Another important consideration always to be kept in mind when presenting reports of statistical facts is that—

The function of a presentation of statistical facts is to afford the basis for executive control. It should mark the starting point of investigation.

The facts themselves cannot contain the solution to the problems that they present. The solution rests with the executive to whom the facts are presented. Adherence to the above-defined function of a presentation of statistical facts by the office will keep the presentation of data within practical bounds.

Technique in Presenting Statistical Facts. Let us also here consider the technique of fact presentation in the light of applying the functional principle above stated.

One good working rule in presenting figures and tables is to limit the report to as short a length as possible without omitting any pertinent facts.

The development of the use of graphic charts and diagrams has proved an invaluable aid in bringing into relief the pertinent facts in brief space. Correctly designed charts and diagrams also aid greatly in making comparisons.

But, as a rule, supporting figures must accompany these significant graphic reports, altho the executive will be interested in the figures themselves only after the pertinent facts have been brought to his mind thru graphic illustrations. Not until the pertinent fact or facts are brought out should the detailed facts be presented. However, we must always bear in mind the following principle:

In the effort to condense the report, significant facts should not be omitted.

No greater mistake could be made than to assume that because an executive is concerned with the broad aspects of management, he should therefore be presented with gross figures alone. It is possible, for example, to show a cost statement of materials, labor, and overhead totals in which each of these costs conforms to standard costs, whereas an analysis of costs by processes would show a

significant increase in the cost of certain processes, offset by a corresponding decrease in the cost of other processes.

Exceptional facts of that kind should be pointed out to management in the report. It is thru analyses that bring out the exceptional facts quite as much as thru the statements of gross figures, that management will be adequately informed. This is application of what is called the "exception principle," which says that—

It is in exceptional conditions or results that management finds its point of attack in its control of a business.

The main function of a report, in fact, is to awaken the executive to exceptional conditions that need his attention.

This whole problem of statistical control, from the viewpoint of the executive's use of statistical facts and figures, will be fully covered later on. Here we have briefly considered this problem from the viewpoint of the contribution of the office in solving it, for this is a constructive office service that cannot be even temporarily overlooked in our analysis of office functions.

* * * * *

We have now considered the three great facilitating functions of the office—the dispatch routines, the office service, and the accounting and statistical activities that contribute to control. The next manual, entitled "Providing Productive Working Conditions," will deal with the problems of housing the office force and of providing the proper office equipment.

CHECK-UP ON PRINCIPLES

Use the following check-up to get the principles of this manual firmly fixed in mind. This will help you to handle the problem which follows. This check-up is entirely for your own personal use, so you need not send it in to the University.

	Check	
	Yes	No
1. The credit manager of the Brown & Hibbard Dry Goods Company tells the treasurer that customers' payments on accounts would be speeded up if the office could get out the monthly statements more promptly. Does this sound reasonable to you?		
2. Is it always necessary to maintain— An accounts-receivable ledger? An accounts-payable ledger?		
3. Should pay-roll activities be considered— Routine activities? Service activities?		
4. Can pay-roll data be made to contribute to management control— Of production? Of personnel?		
5. The office manager of a manufacturing establishment has convinced the general manager of the value of various reports which he has worked up. He suggests that the general manager call a meeting of the department heads so that he can explain the reports to them before putting them into effect. Is this a good plan?		
6. "Do not keep records for a whole department. Pick out the items that you think are not selling properly, and watch the sales for a while. When you have these items going all right, select other items for similar procedure." Does this sound like a sensible plan of merchandise control?		
7. A manufacturing company has established standard costs for each article it manufactures. This it has done by recording actual costs over a period of years and finding the average cost for each item. It no longer accumulates actual costs for every article, but limits its cost efforts to testing out the costs on various articles from time to time to find if they vary from the standard. Is this a sound cost method?		

	Check	
	Yes	No
8. The president of a business house is its former sales manager. He works constantly for a big sales showing, with little regard to the lines in which it is made. There is a considerable variation in the profits made by the various lines, some lines actually showing losses under normal conditions. Is this a situation where an office manager of initiative with ability to analyze sales facts and present them clearly should be of constructive value?		
9. Which is more advantageous to the company— To pay employes by check? To pay them by cash?		
To the employes— Payment by check? Payment by cash?		
10. The office manager of one concern suggests to the general manager that a copy of each report regularly issued be routed regularly every six months to each executive who regularly receives it, with a request that he note on it whether he still has need for it or not. Would you approve of this plan?		
11. Is it advisable to keep attendance and tardiness records of executives and other employes who do not register on time recorders?		
12. Can sales analyses be made helpful to the purchasing agent of a manufacturing company or buyer of a wholesale or mercantile establishment?		

Executive Problem 59

INCREASING TURNOVER THRU IMPROVED MERCHANDISE CONTROL

A Problem in Merchandise Analysis

UNDER THE LASALLE PROBLEM METHOD



WHAT are the good sellers in the line? What are the slow sellers? In what proportions as to sizes, types, prices, etc., should goods be stocked in order to obtain maximum turnover?

Merchandise control consists of the compilation and analysis of data thru which such facts as those suggested above can be ascertained. This executive problem will furnish us experience in ascertaining such facts for a line of shoes—an experience from which we shall gain an understanding of how the control of any stock of merchandise can be established.



Prepared by the Research and Consultation Staff of LaSalle Extension University from an interesting problem which it has carefully investigated and analyzed.

Executive Problem 59

INCREASING TURNOVER THRU IMPROVED MERCHANDISE CONTROL

The following figures present the experience of a retail-store manager with a particularly good selling style of shoe.

	No. of Pairs Sold	Pairs in Stock at End of Week
First week	84	300
Second week	100	200
Third week	44	156
Fourth week	32	124

These figures show a sharp drop in sales in the third and fourth weeks. Yet nearly half the original stock was unsold. This falling off could not be explained by seasonal changes, waning of popularity for the style, or other outside factors. The manager analyzed his sales. This is what he found.

The sales had been made largely in shoes in two price groups. At the beginning of the four-week period he was able to meet the demand for the shoes in those groups. By the end of the second week the shoes in those groups were nearly sold out. At the end, there were left only shoes at prices for which little demand existed. In stocking the shoe, he had failed to consider the prices at which the people were likely to buy.

The loss thru such a situation was a double one. Sales were being lost in the popular-price groups, because these groups were understocked. Money was tied up in unpopularly priced shoes, because they were overstocked. The result was a slowing up of turnover, resulting in a marked decrease in sales and profits.

With this experience before him, this store manager set about an analysis of his entire stock by price groups. His findings are summarized in the following table:

ANALYSIS BY PRICE GROUPS

	\$3-\$4.85 <i>group</i>	\$5-\$6.50 <i>group</i>	\$6.75-\$8 <i>group</i>	\$8.25-\$10 <i>group</i>	\$10.50-\$20 <i>group</i>
Pairs of shoes sold in 6 months.	795	1,410	1,104	854	847
Average stock carried.	346	990	1,145	1,253	1,248

At the same time he made a similar investigation by the types of shoes, from which the following summary was obtained:

ANALYSIS BY TYPES OF SHOES

	<i>Boots</i>	<i>Ox-</i> <i>fords</i>	<i>One</i> <i>Strap</i>	<i>Two</i> <i>Strap</i>	<i>Wells</i>	<i>Sport</i> <i>Shoes</i>	<i>Evening</i> <i>Shoes</i>
Pairs of shoes sold in 6 months.	203	652	1,286	1,660	254	602	353
Average stock carried.	396	600	1,688	1,201	195	403	499

When we examine these figures, we see that in some cases the sales are larger than the stock carried, while with shoes of another group or type, the number carried in stock is much larger than the number that has been sold during this period. Here is evidently a situation that will bear looking into.

The executive problem will consist of the analysis of these figures to discover in what directions adjustments may be necessary, and to consider other directions in which similar analysis would be helpful in the control of the department. To facilitate us in this analysis, we shall chart these data graphically. Thus the problem will take the form of a practical exercise both in the presentation and in the analysis of statistical data.

